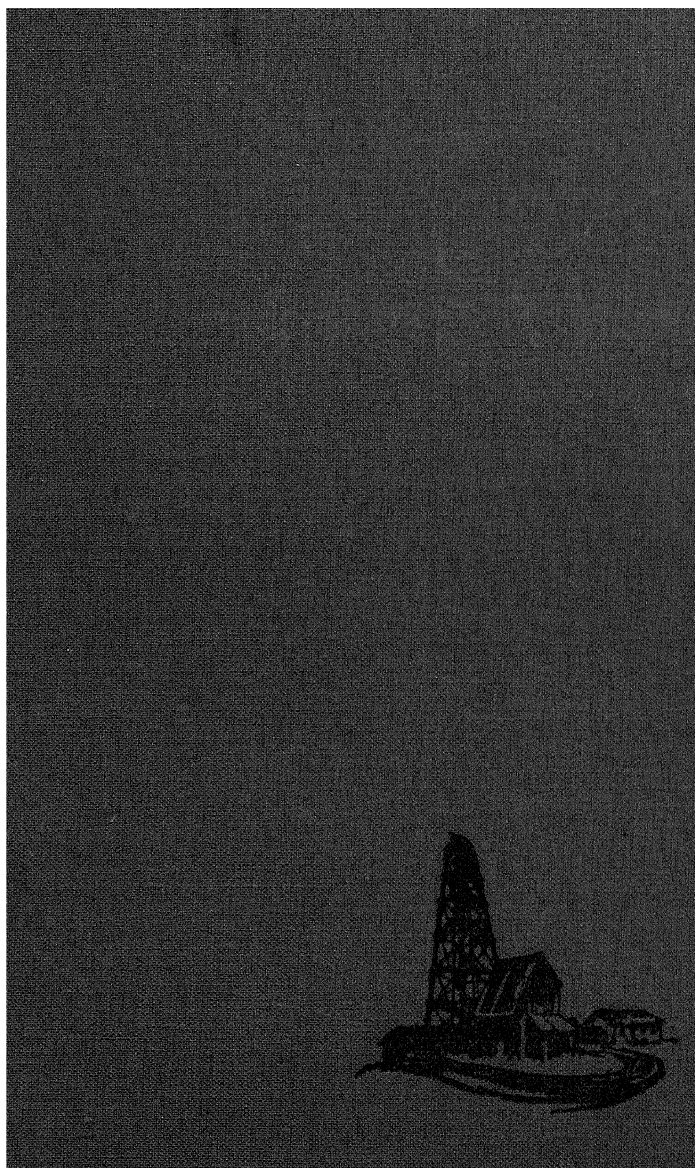


**THE TEXT IS FLY
WITHIN THE BOOK
ONLY**



553.28 B749v
Botsford
The valley of oil

65-52816

553.28 B749v
Botsford \$2.00
The valley of oil

65-52816

kansas city



public library

kansas city, missouri

Books will be issued only
on presentation of library card.
Please report lost cards and
change of residence promptly.
Card holders are responsible for
all books, records, films, pictures
or other library materials
checked out on their cards.

KANSAS CITY, MO. PUBLIC LIBRARY



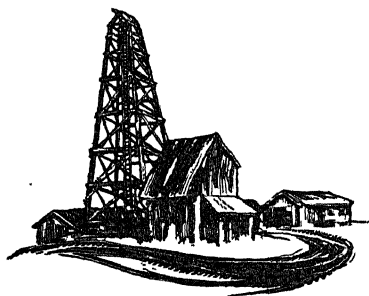
0 0001 0242694 7

The Valley of Oil



The Valley of Oil

By HARRY BOTSFORD



With illustrations by
HARRY HOEHN

HASTINGS HOUSE

Publishers

New York

COPYRIGHT, 1946, BY HARRY BOTSFORD

*All rights reserved. No part of this
work may be reproduced without the
written permission of the publishers.*

Printed in the United States of America

IN DEEP HUMILITY AND SINCERE AFFECTION

I DEDICATE THIS BOOK TO

THE CHERISHED MEMORY OF THE
BEST OIL MAN I EVER KNEW—

My FATHER

CONTENTS

CHAPTER

PAGE

A Man Named Drake

I	PRELUDE	3
II	TITUSVILLE	10
III	A STRANGE SPRING	16
IV	THE MILL AND THE STREAM	23
V	THE SEED SPROUTS	29
VI	MONEY TROUBLE	31
VII	SUCCESS	45
VIII	AFTERMATH	63
IX	EXIT, EDWIN L. DRAKE	72
X	DRAKE—A PROFILE	79

Pithole—Phantom City

XI	MR. FRAZER COMES TO PITHOLE	93
XII	A WELL IS DRILLED AT PITHOLE	106

CONTENTS

CHAPTER	PAGE
XIII FRONT PAGE NEWS	115
XIV WELCOME TO PITHOLE	128
XV CURTAIN	134

Portraits in Oil

XVI FIRST REFINER	143
XVII TRANSPORTATION TRIBULATIONS	157
XVIII COAL OIL JOHNNY	181
XIX TRIAL BY FIRE	197
XX MAN OF MYSTERY	203
XXI THE ARSONISTS	213
XXII ROBBERY ON A HIGH SCALE	218
XXIII THE MAN WHO HAD THE CURE	228
XXIV LALAH, THE SPIRIT GUIDE	243
XXV . OH PIONEERS!	250

Appendix

XXVI SHIFTING VALUES	261
XXVII TO MARKET, TO MARKET!	267

A Man Named Drake



CHAPTER I

Prelude

*I*t had been warm for December. But at dusk a hungry, wolfish wind, flecked with snow, howled down the valley and through the village streets. In the small front room of the American House it was peaceful and very quiet. The lamp had not yet been lighted.

Elija Benedict, porter and clerk of the little hotel, settled his elderly bones in a low chair close to the glowing belly of the wood stove and nodded drowsily and gratefully. The pork chops for supper had been done to a turn, and Sarah's mashed potatoes had been beyond reproach and free of lumps.

An ancient clock on the wall grunted industriously as it gnawed away at the hours. From the adjoining bar came a trickle of talk, a sort of monotone, broken now

THE VALLEY OF OIL

and then by a rollicking blast from a mouth organ and a tinkle of glasses. Benedict's thin lips curved sardonically beneath his long and unkempt mustache. Them woodchoppers, always a-wastin' their substance on strong drink! Easy come, easy go, with half-a-dollar-a-cord wood to be cut. Man could cut hisself two cords a day easy . . .

The wind tugged at the windows and they rattled as if annoyed. Someone passed the window, the steps sounding hollow on the plank sidewalk. The man's head was bent against the wind and his hands were buried in the pockets of his greatcoat. Peter Wilson was going back to his drug-store for the evening. A horseman splashed up the muddy street. The rider was a large man, wrapped in a heavy cloak. The glow of his cigar brightened into a golden spray as he spurred his horse into a lumbering trot. It was Doctor Brewer, the saw-mill man, returning from work. He waved a mittened hand and shouted a greeting at Peter Wilson. Wilson, a taciturn man, waved briefly and hurried on.

Life was normal, Elija reflected sleepily. This was Titusville, Pennsylvania, and nothing ever happened here, he was glad to say. He was an old man, and he disliked confusion and noise. Sarah, for example, was making entirely too much clatter over washing the supper dishes. He wished she would be more quiet.

Sid McGinley, the barman, stuck a bald shining dome in the door.

"Stage been in yet today?" he shouted. One of the

PRELUDE

crosses Elija Benedict had to bear was a settled and unshakable belief on the part of McGinley that Elija was stone deaf.

Benedict lifted his head slowly and glared balefully at the intrusion. Always wakenin' a feller up, was Sid. He spit forcefully into the box of stained yellow sawdust by the stove and answered briefly and triumphantly, "This here ain't stage day, you lummo!"

McGinley limped across the small room, scratched a match on the seat of his jeans and lighted the lamp. He picked up a patent medicine almanac and thumbed through it to a certain page. He pushed the book under Elija's nose. "There you are, 'Lija!" he yelled. "Black and white, there she is! This here's December 16, 1857, a Friday. What do you say to that? That makes it stage day! Gettin' old, 'Lija, when you don't know what day it is!"

Elija was disturbed and annoyed. He had to admit that he could not dispute the evidence before his eyes. To do so would be the equivalent of disputing the Holy Scriptures.

"Guess you are right," he acknowledged ruefully. "Roads must be purty bad I reckon. Never knew the stage to be so late. It's a long, hard stretch from Erie down here. Maybe a horse threw a shoe or a wheel busted or somethin'."

Sid was grinning when he returned to the bar. Soon a gale of laughter sounded. Elija squirmed uneasily. He knew what had happened. Sid had told the customers



about him not knowing the day. He'd never live it down.

"Rascal!" he muttered.

It was after ten when the stage rumbled to a stop before the American House and the weary horses stood with their heads drooping, steam rising into the cold

PRELUDE

air. The driver climbed stiffly down from his seat and opened the door of the stage for its single passenger.

He emerged, a tall, thin, heavily bearded man, carrying a small satchel. He strode through the door held open by the yawning Elija and made straight for the welcome warmth of the glowing stove. He was neatly, almost foppishly dressed, according to the critical judgment of Elija, a local authority on such matters. The man rubbed his hands, stroked a luxuriant beard and sniffed.

“Would that be a bar in there?” he asked anxiously, pointing toward the open door. Elija nodded. As the man in broadcloth was swallowing his second tot of brandy with real appreciation, Elija touched his elbow entreatingly. “Would you be puttin’ up for the night?” he asked anxiously. “It’s way past my bedtime and I’d like to know.”

“Yes, I’ll be here several days,” the tall man answered tersely. “I want a room—plenty of blankets and quilts, too. It’s a hellish trip from Erie down here! Two days for fifty miles and the roughest excuse of a road I’ve ever seen. I’ve had nothing to eat since noon. Can you find me some cold meat and bread and butter?”

Later, when the man was wolfing cold pork sandwiches which Elija had protestingly and reluctantly secured for him, Elija sneaked another look at the registry book. Neatly inscribed thereon was the man’s name, “Edwin L. Drake,” and his place of residence, New Haven, Conn.

THE VALLEY OF OIL

The bedroom was chilly. The tall man undressed quickly, pulled a woolen nightshirt over his head, blew out the lamp and slid beneath a thick layer of blankets and gaudily colored crazy quilts. Wearily his body sank into the deep feather bed.

The wind had increased to a gale. It whistled mournfully around the building and the windows rattled and shook. From the bar below he heard Sid shouting good-night to the customers. A door slammed and from outside a man's voice was raised in laughter, but the wind snatched at the sound, smothered it. He heard Sid yell a good night to Elija and another door slammed. The place was quiet, aside from the tumult of the storm outside.

Edwin Laurentine Drake, one-time railroad conductor, owner of some dubious stock, stared sleeplessly into the darkness. He was not an imaginative man. He was, as a matter of fact, a stolid and stubborn individual. There were times when he wished he had not been talked into investing his last \$200 by smooth, persuasive James M. Townsend, the banker he had met in the lobby of the Tontine Hotel in New Haven. Otherwise, he would not be here on what might prove to be a wild-goose chase.

This was a strange venture for him. He wasn't used to roughing it. He wasn't a well man and his wife had not wanted him to make this trip. This promised to be more of a physical strain than being a conductor on the

PRELUDE

New York & New Haven Railroad, a job he had reluctantly relinquished because of poor health.

It was a long time before he fell into a restless sleep. Perhaps his wakefulness was due in part to the pork sandwiches. Possibly it was due to a foreboding of troublesome and exciting times to come, when the solemn, dignified man was to be plagued with an urgency that constantly haunted him, kept him always at grips with a never-ending series of acute and imperative urgencies.

It never entered his mind that he was to be an Instrument, the mortal chosen by a capricious Fate to unlock a treasure greater and more useful than the world had dreamed possible.

It was as well that he did not know.

CHAPTER II

Titusville

Titusville, Pennsylvania, is named for Jonathan Titus. He settled there in 1790. The site of the city is a three-mile-long valley, a mile in width, surrounded by towering, heavily wooded hills.

It was a site for a farm, one that was shrewdly selected by Jonathan Titus. He was a civil engineer, a giant of a man, intelligent, ambitious, an ideal pioneer. The valley was rich and productive, comparatively free of timber. There was plenty of small game, cold and sparkling springs flowing into a network of clear creeks—creeks that still contain native brook trout—all emptying into Oil Creek.

The little village that slowly grew up around the Titus farm was entirely undistinguished in the early Fifties. It had the faults and the virtues of a thousand

TITUSVILLE

other small towns scattered throughout the land. In 1847 it was legally incorporated as a borough; the total population was listed as being 275.

The settlers were mostly of English and German descent. Among them could be found the names of Chase, Duncan, Potter, Kerr, Pastorius, Thompson. As in most villages of the day, life was circumscribed and the social life necessarily dull and limited. There was no idle class, little luxury. Church services and burials were rated as social events. Almost everyone belonged to the Oil Creek Presbyterian Church. The pastor, Reverend Amos Chase, was pious and popular.

Pleasures were few, usually confined to infrequent square dances, held in homes and in barns at harvest time. Then the fiddles squeaked and shrilled joyously and the younger element, dressed in their sober best, capered and cavorted as late as eleven o'clock on some nights.

Large families were the rule. Procreation was considered a normal and pious duty. Childless couples were infrequent. Girls who failed to marry before they reached the age of seventeen were openly labeled as old maids. There were only a few of them.

The village grew slowly. Central Avenue and Main and Spring Streets ran north and south. Franklin and Perry Streets bisected them. The streets were unpaved, shaded with tall and sturdy oaks, maples, and elms. A bridge of sorts, a rather improbable wooden structure, spanned Oil Creek. Narrow dirt roads, little more than

THE VALLEY OF OIL

wide enough to permit the passage of a farm wagon, were the sole avenues of approach and exit to the sleepy little town in the quiet, peaceful valley.

There wasn't much in the way of commercial life. Private enterprise was almost incidental to the economic life of the village. There were only a few stores. Peter Wilson had a small and fairly prosperous drug-store. Here one could buy bottled nostrums guaranteed to cure all manner of physical disorders and obtain such common drugs as castor oil, alum, saltpeter, ammonia, and witch-hazel.

One optimist tried to start a butcher shop. The project failed because of a lack of patronage. The settlers raised their own meat, knew how to cure and store it. They had but little cash to squander on such luxuries as fresh beef or pork in the summertime. The lone grocer did a pindling volume of business, confined in the main to such commodities as tea, coffee, spices, matches, baking-powder, and yeast.

The settlers were largely self-supporting. They grew bumper crops of potatoes, beans, beets, corn, cabbage, wheat, oats, and buckwheat—sufficient to satisfy voracious appetites the year around. An abundance of hard maples made it possible for every home to have plenty of maple syrup and sugar. Each farmer owned a flock of chickens and ducks, a small herd of cattle, a flock of sheep, and a pen of fat hogs. In the nearby woods a man with a shotgun could find flocks of ruffed grouse, squirrels, rabbits, raccoons, and even an infrequent wild

TITUSVILLE

turkey. Wild pigeons were so numerous they were considered pests and thousands were trapped and served on farm tables. Trappers had no difficulty in getting fine and profitable catches of fox, skunk, and beaver.

No one hungered. But, everyone worked.

Wage earners were few, largely a privileged class. There was little money in circulation. During the winter months, farmers cut and hauled stove wood to the village where it was often sold at fifty cents a cord. A few men cut logs for the Brewer, Watson, & Company sawmills. A few others worked in the mills. Others were employed by Joseph L. Chase & Company, owners of a grist mill, a lumber business, and also operators of a small woolen mill for a part of each year.

During the spring freshets, loggers and sawmill workers often helped to float and steer huge rafts of timber and sawed lumber down Oil Creek to its junction with the Allegheny River at Oil City. A few even helped to pilot the rafts all the way down the river to Pittsburgh, a real adventure. They came back, walking the entire 125 miles, with strange tales of buildings that towered as high as five or six stories, tales regarded by many of the villagers as being highly improbable.

If the life was dull and prosaic, it differed but little from village life the world over. People whistled, sang, danced, prayed, loved, sinned, and sorrowed. Men worked with their hands and a blister was a badge of honor.

Women, on the whole, worked harder than the men-

THE VALLEY OF OIL

folk. There were monumental breakfasts to prepare, a big dinner at noon, and supper was not what might be called a light snack. Women baked their own bread and pastry, made their own soap. Kitchen floors had to be scrubbed white every day. The family washing was a major chore that involved the carrying and heating of tubs of water, the back-breaking use of a washboard, and then hours standing beside a hot stove, ironing the clothes. Stoves were blackened every other day. Quilts had to be made, wool had to be carded, meat made into sausage, fried and packed. Cows had to be milked, butter churned and packed away in salt. The care of the poultry was purely a feminine chore. The kitchen garden was a woman's job. Each housewife accepted as a challenge the assumption that on the Fourth of July she should be able to place on the dinner table spring chickens and the first green peas and new potatoes of the year. A woman who failed in this, failed in a great civic responsibility and became the subject of much idle gossip.

Child birth was virtually an annual function and provided a few days' respite from the daily round of chores. Yet, women were cheerful, faithful companions—good mothers, excellent housekeepers. Little girls were accomplished knitters and menders before they were ten years of age.

Sundown and dusk, as in all rural communities, witnessed the end of the day's activities and meant a time to go to bed. Candles, even if homemade, were expen-

TITUSVILLE

sive. The illumination they provided was inadequate for reading or sewing. Lard oil lamps were only for the rich. Only a few people had ever heard of or ever used whale oil or kerosene oil lamps. There was little social life or general activity after dark. Titusville, and all the world with rare exceptions, lived in the Dark Age.

A scant mile from the heart of the village, however, was an oil spring destined to bring the Dark Age to a dramatic and final end.

A Strange Spring

Petroleum is ageless.

It is mentioned dozens of times in the Old Testament. It bubbled mysteriously from the fountains of Is, on the Euphrates, and was unquestionably known to the founders of Babylon who were reputed to have used asphaltum in the erection of their temple. The Egyptians used some form of petroleum in an embalming process that still remains a secret. Dioscorides Pedanius, that dull but accurate Greek historian, told the world that the citizens of Agragentum, Sicily, burned petroleum in crude lamps. Plutarch gave us a thrilling account of a blazing lake of petroleum at Ecabatana.

In the New World, men also knew petroleum. To the Indians, petroleum was a part of their life—a strange, magic fluid, possessed of curious powers they could not wholly understand but which they tried to use.

A STRANGE SPRING

Even before the era of the Indians, there existed a race that knew something about petroleum and its use. Of this race but little is known.

Down the Oil Creek valley, in proximity to the site of the first artesian oil well, there still can be found traces of oil pits, originally about eight feet in depth and cribbed with ancient oil-soaked logs. Obviously these pits were used for the collection of petroleum which seeped through the sands into the pits.

When the Indians were asked about these pits, even the oldest and wisest medicine men confessed to ignorance. Nothing in their tribal lore, stretching back for centuries, gave any hint of the origin of the pits or of the men who had built them.

Learned men from colleges, thirsting for knowledge, gnawed by curiosity, have made excavations, studied and pondered over what they found. They admit that the pits are not Indian in origin. The logs were cut and fitted together so snugly that it appeared evident the wood had not been processed by flint instruments. The educators are firm in their conviction that the work was not done by the Mound Builders.

Who built the ancient oil pits seems destined to remain a secret. The number of the pits, the possible volume of petroleum that must have been recovered, breeds other mysteries. If the volume was great, how was it used? How was it transported? Where did it go? These are questions that remain unanswered.

Perhaps the earliest mention of evidences of the exist-

THE VALLEY OF OIL

ence of petroleum in the New World, can be credited to Joseph de la Roche d'Allion, a Franciscan Missionary who crossed the Niagara River from Canada and who penned a brief account of an oil spring he discovered in 1629. That report eventually found its way to Paris. Both Church and State found little of interest in the report and dismissed it as being unimportant.

In 1721 another Frenchman, Captain Jules de Joncaire, led a small expedition into another sector of a land France then claimed. He, too, patiently prepared a report on finding "a fountain at the head of a branch of the Ohio, the water of which is like oil." If the report, couched in strict military phraseology and brevity, received more than even passing comment by his superiors, it is not so recorded.

Other early explorers, both French and British, discovered oil springs and made notes and rendered faithful reports to which no one apparently paid any attention. One English officer related that the men of his force were exceedingly footsore. When they reached an oil spring, the Indian guide urged them to rub the oil on their sore and blistered feet. It proved to be a miraculous remedy, he stated, and even old, festering wounds started to heal after a few applications.

On the whole, however, the early explorers and settlers were so deeply concerned with serious and urgent tasks that they gave but little thought to the strange, greenish, unusual smelling liquid that sometimes seeped into obscure springs and creeks. They were seeking

A STRANGE SPRING

things of greater substance: land to be claimed in the name of their sovereigns, land that could be tilled, a suitable site for a trading post, physical and economic security in the wilderness.



Only the Indians seemed to place a high value on the oil springs. The most productive of the springs was located along a thirty-mile creek in what is now the northwestern corner of Pennsylvania. These springs were known and held in high regard by the Seneca, Cornplanter, and other tribes of Indians.

THE VALLEY OF OIL

Once a year, usually after the spring floods, the old legends have it, the tribes would gather on the banks of what is now known as Oil Creek. They would bring with them their ailing and their wounded. The medicine men would see that the indisposed were bathed and laid naked in the warm sun. They would then gather the oil floating on the surface of the creek, oil that seeped in golden bubbles to the surface of the springs along the bank. Blankets would be laid on the surface of the oil-covered waters where they would soak up the oil. The blankets were then wrung out into deep earthen jars. Sometimes the medicine men would skim the oil from the water by using a long wooden paddle, knife-thin at one edge and thick at the opposite side.

Then, one night when the moon was high and full, the chief medicine man would perform a strange ceremony, a traditional rite.

The Indians, stolidly expectant, lined the bank of the creek. Behind them lay the inert rows of ill and wounded. All was silent. The scene was lighted by one small flickering camp fire and the big moon flooded the valley with a thin golden haze. The chief medicine man seized a blazing brand from the fire, hurled it into a still backwater of the creek which bore a scum of oil. With a crackling roar the flames soared to the tree tops. The fire crept rapidly and soon the entire creek was ablaze for a mile downstream. The Indians shouted. Black smoke climbed steadily upward, almost blotting out the

A STRANGE SPRING

moon. In fifteen minutes the fire died down. Until then the Indians remained immobile, steady ranks of bronze shadows against the red, leaping flames. As the last flame sputtered smokily out, previously prepared camp fires were lighted and the medicine man moved past them to begin his ministrations to the long rows of sufferers. Some were gently anointed with the oil from the jars, others were given strong doses of it to swallow from birch-bark cups. The bank of the creek became a primitive field hospital and the chant of the medicine men rose and fell through the night.

For a week there was feasting—and medication for the sick. Faith, or the natural curative powers of the oil, worked miracles. Old wounds started to heal; warriors plagued with bellyaches and assorted inward pains started to show an active interest in food again.

At the end of the week the tribes moved again, this time only a few miles away. Again they established camp. This camp was located high up on a densely wooded hill, where the ground was thickly carpeted with pine and hemlock needles and the air was pungent and aromatic. Here was a spring from which both the ailing and the well drank heartily. The water was ice-cold, imbued with a strong mineral content.

The spring is still there. It still contains a strong iron content and many still believe its waters are curative.

In the area around this spring there can be found even today, if one is patient, arrow heads, flint instruments, and stone mills used in grinding meal from corn.

THE VALLEY OF OIL

The area, beyond doubt, was a health resort, peaceful and popular. It is not unlikely that tribes other than the Senecas and Cornplanters used both the oil and the iron springs for healing purposes. In any event, it was neutral ground, never the scene of battle or violence.

It took the white men, even after quantities of oil were available, many, many decades to discover what the Indians knew, that petroleum possessed many strange and interesting curative qualities. Even today, we have not fully exhausted these practical possibilities.

The Mill and the Stream

For three miles Oil Creek flows lazily between lush meadows and lowland. Then the channel narrows and it is flanked on the west by a towering range of heavily wooded hills. From this point, the water hurries and the channel deepens.

Here was an ideal site for a millrace. Brewer, Watson & Company recognized it as such, harnessed the waters, and put them to work driving the machinery of their two busy and prosperous sawmills. There was ample level ground on which lumber and timber could be piled, a place where rafts could be constructed. These rafts could be easily launched during freshet time when Oil Creek became a rushing, yellow torrent. The rafts would bobble erratically down the fifteen-mile length of Oil Creek to the Allegheny River at Oil

THE VALLEY OF OIL

City. From here the rafts would be guided down the river to the metropolis of Pittsburgh.

The senior member of the concern was Dr. Francis Brewer, a physician and a graduate of Dartmouth College. He had joined the firm in 1853. He was a big man, more fitted for the career of a businessman than the quiet and physically inactive life of a general practitioner. There was money in the lumber business. It was work that kept him out of doors, gave him a robust appetite and abundant good health. He enjoyed life and the pursuit of honest dollars. He was one of the most mentally alert men in the village, was a leading citizen, a man of considerable personal means.

Second to him in most qualities was his partner, industrious, hard-working Jonathan Watson. In the manner of the day, each was heavily bearded and possessed of great dignity. It was Brewer's job to survey the timber tracts, to keep a close running record of the logs as they were cut, hauled to the mill and fabricated into timbers or lumber. Watson conducted the mills, kept an immaculate set of ledgers, sold the output, did the banking and paid out the wages.

The oil spring, situated close to the mill, fascinated Francis Brewer. When he had the time, he would stand on the brink of the spring and smoke reflectively as he watched a steady procession of golden bubbles of oil march upward through the crystal clear water. It never failed to capture his interest and make him think deeply. The oil had a strange, mysterious smell, something that

THE MILL AND THE STREAM

verged on being a perfume, an earthy fragrance that unflinching excited his senses, challenged and mocked his imagination.

The sawmill machinery was adequately lubricated with the substance. Lard oil, tallow, and vegetable oils were expensive, difficult to secure. The oil saved the firm money. Besides, it was a better lubricant than any other machinery lubricant.

It had another use. On dark days, Palmer Fink, the short, thin, hustling head sawyer of the mill, burned the oil in a crude lamp to illuminate the premises. He had rigged up a cast-iron pot with a close-fitting cover pierced with a small hole through which a rope wick was drawn. The lamp burned with an offensive odor, but produced a high yellow flame that made it possible to operate the mill, regardless of how dark the day might be.

An educated man, Francis Brewer puzzled over the strange fluid that came from the oil spring. A flask filled with it, when held up to the sun, glowed with a clear and lovely amber that seemed to mock him with its beauty and mystery.

What was this oil? Locally, the villagers often called it "Seneca oil." The Indians had once used it as a medicine, according to local talk. A few of the townsmen still used it as an ointment, or swallowed small doses of it for certain ailments. They swore that it was a prime and potent remedy, a thing that his medical training refuted vigorously. It was also known as "Creek oil";

THE VALLEY OF OIL

others called it "Rock oil," and made curious and unsupported claims that it was an essence exuded from rocks buried far beneath the surface of the earth.

Beyond these tenuous and unsatisfactory items, there was little known of the oil.

Brewer frequently talked with Jonathan Watson about the spring and his voice would boom and thunder over the quiet, smooth tones of Watson. They were both eager for every profit in sight. They agreed that it would be desirable to explore the possibilities of stimulating the flow of oil from the spring. They had only a vague idea of how they might profitably dispose of such a potential surplus.

J. D. Angier, a village resident with time on his hands, shared their interest and was willing to make a modest gamble. After discussion, an agreement was signed. By the terms of the document, Angier agreed to dig the spring deeper, to install a series of drainage ditches, to salvage the oil. After expenses were paid, the net proceeds from the sale of the oil were to be divided equally between the owners and Angier. It was a neat and airtight compact, and the owners of the sawmill could not fail to profit by the arrangement.

Angier optimistically and industriously set to work on the project. It was none too successful. As he sweated and toiled under the blazing sun, Francis Brewer and Jonathan Watson cheered his energy and enterprise.

Brewer decided to take a trip East. He filled three

THE MILL AND THE STREAM

large flasks with oil, carefully packed them in his satchel. He traveled to Dartmouth College, hunted up his old tutor and good friend, Professor Dixi Crosby of the Medical School, a learned and jovial individual.

He placed the three bottles of oil in a neat row on Crosby's long butternut desk. He gazed at them a minute and then said abruptly, "Professor Crosby, can you tell me what this stuff is? I happen to own a spring where this liquid bubbles from the ground. I'm downright anxious to know if it has any commercial value."

Crosby chuckled, fingered his short brown beard. "If this happened to be a query about the human anatomy, or the strange diseases doctors are supposed to cure, I could probably give you an intelligent and a convincing answer. But, this is somewhat out of my sphere."

He smiled, relighted his cheroot, and asked many questions of his former pupil. He was deeply interested. He smelled the contents of one bottle, rubbed some of it on the palms of his hands, even tasted a few drops of it speculatively.

"Unusual and most curious," he confessed soberly. "Let me study this liquid. Perhaps I can persuade one of my associates to analyze it. I'll confess it has me puzzled. Your real problem, even if the oil has a practical commercial use, will be to produce it in quantities. I doubt if that is possible."

Brewer was, above all, a practical man. He knew there was great common sense in what Crosby said.

THE VALLEY OF OIL

Unless there was a lot of the oil, it would be impossible to make the securing of it a profitable endeavor.

He gloomily departed for Titusville, resolved to devote his entire time and attention to the stern but profitable business of running a sawmill.

He had, however, planted a fruitful and an interesting seed, destined eventually to sprout into exciting being.



CHAPTER V

The Seed Sprouts

Professor Crosby's big, rambling house was a traditional center of hospitality at Dartmouth. He was one of the most popular members of the faculty. The house was constantly overrun with hungry students, alumni returning for visits, and with friends of his son, Albert. The Crosbys lived cheerfully and joyously.

Francis Brewer had just about time enough to return to his Pennsylvania home when another alumnus put in his appearance and sought Professor Crosby's ready hospitality.

Again, it was someone seeking advice and counsel. This time it was George H. Bissell of New York, a lawyer with a small, promising, but unprofitable law practice. He was a young man of great personal charm, somewhat unhappy in his chosen profession, and very anxious to explore any field of endeavor where the

THE VALLEY OF OIL

monetary rewards would be sufficient to gratify his expensive tastes.

Crosby was delighted to see Bissell. He prevailed upon him to take supper with the family. After the meal, the two men repaired to the library where it was cool and comfortable.

Crosby, always a bit of a gossip, told Bissell of Brewer's visit. He opened the drawer of his desk and brought out the bottles of oil. Bissell was strangely excited over the display and asked dozens of searching questions, only a few of which Crosby was prepared to answer. In the midst of their discussion, Albert Crosby, a hulking youth with more weight than wisdom, joined them. The three men discussed the possible commercial value of the oil far into the night. They arrived at no decision. Professor Crosby—the trained, educated man—was something of a realist. While he acknowledged that the oil might have some commercial value, unless it could be recovered in volume, it had no profit possibilities in his considered opinion. Albert Crosby, on the other hand, was cursed with the incurable optimism of youth. He visualized some vague magic by which the oil could be made to flow, creating a new, great wealth for whoever might tap the golden vein of liquid. Bissell, himself, spoke glowingly of a stock promotion scheme based on the spring and its possibilities.

This was in July of 1853.

It was to be a full year before events began to take on interesting proportions.

CHAPTER VI

Money Trouble

George Bissell returned to New York. In the course of a few days he told his law partner, Jonathan Eveleth, about his visit to Professor Crosby and the bottles of oil that came from an obscure little creek town in Pennsylvania.

The lawyers had a practice that was far from lucrative. Their personal means were usually meager. Even office rental constituted a major problem at times, a problem complicated and made urgent by an impatient landlord. This was one of those times.

They cheerfully agreed that the oil spring might represent a potential opportunity, providing they had sufficient funds to acquire and exploit it. It was, however, a project that would have to await a more ap-

THE VALLEY OF OIL

propriate time. They must, for the nonce, devote their time, energy, and talent to the stern business of the law, in order to meet the demands of their landlord.

In leisure moments, however, they did discuss the matter somewhat wishfully and tried to weigh its possibilities in the practical terms of their own self-interest.

To appraise the motives of these two young and very ambitious men at this late date is difficult and probably unfair. It is not unlikely to assume that their motives were not on a very high ethical plane. Their intentions can only be weighed honestly in the light of things to come, measured by the evidence that is available after a lapse of over nine decades. In all fairness, let it be said that they were opportunists.

Early in the summer of 1854 Albert Crosby—fat, visibly sweating, but bubbling over with ideas—lumbered into the modest offices of the lawyers. With only a curt greeting, he immediately launched into an extremely persuasive recital of what three intelligent and progressive individuals might do about the Pennsylvania oil spring. He even hinted, in a hushed voice, that some of the oil had been analyzed and that it possessed vast and unusual commercial values.

The interest of the partners revived under the barrage of his genial, bubbling optimism. Again, their joint and individual funds were at a low ebb. Yet so convincing was young Crosby, they promised to raise enough money to send him to Titusville to investigate

MONEY TROUBLE

the spring and to secure an option for its purchase, if conditions justified such action and provided that no money changed hands.

Young Crosby crashed a big fist down on Bissell's desk. "Suppose we can buy that spring at a bargain," he argued. "Then we can increase the flow a thousand times and our fortunes are made!"

The lawyers agreed that this was a strong and interesting possibility. If his report proved to be favorable, they promised to organize a stock company, buy and operate the spring. Albert Crosby would be rewarded generously, they promised.

Dr. Francis Brewer acted as host to Crosby. As the young man was the son of his former tutor, he felt he could do no less. He had often enjoyed the hospitality of the Crosby home; this was his opportunity to return in some measure a social debt long in arrears. His interest in the young man immeasurably quickened when he discovered that Crosby was acting for others who might be interested in the purchase of the oil spring and the surrounding land.

Crosby and Brewer visited the spring. Crosby was entranced, waxed enthusiastic about the possibilities of increasing the flow of oil. Angier, a withered, disillusioned ancient, now turned rank pessimist, disagreed profanely.

"Can't do nuthin' to git more oil," he cautioned. "I've worked myself to skin and bone. Best I can do is to git 'bout six gallon a day. Mostly, I raise 'bout half that.

THE VALLEY OF OIL

Feller down in Pittsburgh, name of Kier, buys it fer medicine. Time carryin' charges is paid, there ain't even a good livin' in it fer a feller."

Brewer coughed in anger. "Angier," he said gruffly, "this young man has some modern ideas about how the flow can be increased. I think he's right and that his ideas will beat yours."

Angier snorted, kept sullenly silent. Crosby's optimism remained unshaken. Brewer, quick to note this, said nothing to discourage such progressive thinking.

Albert Crosby left Titusville, thanking his host profusely for his hospitality. He informed Brewer that he would render a report immediately to his principals and advise them to exercise the option he carried in his wallet.

Arrived in New York, he stormed into the law offices of Bissell and Eveleth and dramatically tossed the option on a desk. He urged them to go ahead at once with their plans for the formation of a stock company.

The partners had no capital. Yet, here was Opportunity literally pounding at their door. They went into private consultation and came up with a plan for financing the project that had the appearance of being more than slightly dubious. The scheme was one that our modern and fussy Securities Exchange Commission might look upon with extreme disfavor.

The scheme appealed to Brewer & Watson when it was outlined to them. The New York lawyers offered the sum of \$5,000 for the oil spring and the adjacent

MONEY TROUBLE

land. No actual money was to change hands, however. The lawyers stipulated that the deed should read that the cash consideration was to be specified as being \$25,000. They promised, when the title changed hands, to organize a stock company with a capital of \$250,000. One-fifth of the stock was to be issued in the name of Brewer, Watson & Company, three-fifths would be issued in the name of Messrs. Bissell & Eveleth, while one-fifth was to be sold to raise working capital.

As a promotional scheme, the formation of the world's first oil company still ranks high. Francis Brewer and Jonathan Watson deliberated over the offer for some time before they accepted it. The inherent value of the oil spring, they believed, was very small. Under the terms of the sale they would become owners of stock that might eventually be worth a par of \$50,000. If this happened, the deal would turn out to be a smart piece of business.

They accepted and signed on the dotted line. The stage was set for a curious sequence. As usual, Bissell and Eveleth were out of funds. Between them they discovered they could not raise enough money to pay for the printing of the stock certificates in the world's first oil stock company, The Pennsylvania Rock Oil Company.

At the corner of Broadway and Franklin Streets in New York was located the thriving and famous publishing establishment of D. Appleton & Company, na-

THE VALLEY OF OIL

tionally known as leaders in their field. The building was large and handsome, and one small office on the second floor was rented to Bissell & Eveleth. They had proven to be troublesome tenants, the firm had discovered. They casually overlooked the payment of rent. This the publishers took as a personal affront. They believed in punctuality where obligations were concerned, especially on the part of those who owed them money. The partners had been warned. One more offense and out they would go.

Directly below the office of the lawyers was the retail establishment of the Appleton's. It was a show place, possessed of great dignity. The tables and shelves were filled with rare volumes; paintings of real merit graced the walls. The establishment was presided over by scholarly clerks. The premises were kept spotless and customers frequently remarked on the general atmosphere of cleanliness and culture so very evident.

One day a clerk accidentally cast an eye upward to what had been an immaculate and virgin white ceiling. To his undisguised horror he beheld a vast, spreading, ugly brown stain. He yelped and carried his tale to Authority. Authority investigated, verified the report, and a howl of sheer anguish rent the air. Cultured clerks heard profanity, ably and competently handled, for the first time in their sheltered lives.

"Those lawyers! This settles it, out they go!" said Authority as it trotted briskly up the stairs with the firm intention of collecting suitable damages or else.

MONEY TROUBLE

The firm of Bissell & Eveleth was in trouble again, the forerunner of a series of minor and major catastrophes which were to hound them for many a weary month.

"The Appletons have been cross and tyrannical since we proposed leaving the office and threatened to sue me on the lease, which was to run two years," Eveleth sadly wrote to Dr. Brewer, under date of April 16, 1855. "I have settled with them, however, and paid them all up, *out of my own pocket*, \$266.87. This was put away for you, but it had to be paid, and the Co. now owe me the rent; and I am glad we are free and clear."

The affairs of Bissell & Eveleth and of the newly formed Pennsylvania Rock Oil Company, it will be seen, were not in what might be called a flourishing condition.

The company had been officially and legally incorporated at Albany on December 30, 1854. There were 10,000 shares of a value of \$25 a share. Of all of the stockholders named, only one had paid any money for his stock. The treasury of the company was empty.

Bissell & Eveleth were deeply worried. Their previous optimism suffered materially under the stern realities of a very skeptical public. The stock resolutely refused to sell.

Eben Brewer, father of Dr. Brewer, was a prime skeptic. In March of 1853 he wrote a bitter letter to his

THE VALLEY OF OIL

son. He was a stern and a practical parent and not averse to putting his son in his place.

"Now your inexperience in business and offhand way of doing things unadvisably, occasions me great anxiety much more than it would to be in the business myself," he wrote. "I always told you that I had no confidence in these men, from the very nature of the transaction, and all that you would ever get would be what you received in the sale—they tell me you are a director and will have to go to N. York in April. Now mark well what I tell you, it is for your interest alone that I now say it. You are associated with a set of sharpers, and if they have not already ruined you, they will do so if you are foolish enough to let them do it."

Strong words these, especially when written to a grownup son! Dr. Francis Brewer had a vast respect for the sound business judgment of his father and heeded the advice, even if it stung a little.

It wasn't long before Dr. Brewer was offering his friends cigars which he claimed had cost him nothing as he had paid for them with worthless shares of stock in the Pennsylvania Rock Oil Company.

Eveleth and Bissell were up against it. No one wanted to buy stock in the venture. They gave a financial writer some of the stock in the hope that he might pen words that would boost its sale and value, an ancient device that has often proven effective in enhancing the paper value of dubious stock. This venture, however, backfired. The journalist worked so hard trying to dis-

MONEY TROUBLE

pose of his stock at any price that he actually lowered its value. Unfortunately, he attempted to sell his stock to his associates on other newspapers.

On one thin thread of hope did the firm of lawyers cling. They had persuaded Professor Benj. Silliman, eminent chemist, of Yale College, to make a study of the petroleum from the oil springs at Titusville and to render a report as to its potentialities. He was nationally known and respected; if his report proved to be favorable, perhaps it would stimulate greater interest in their project and help them to sell stock.

Professional advice then, as now, was expensive. Professor Silliman, a patient, painstaking, thorough scientist found that he had to buy new equipment to make a complete analysis of the petroleum. Before he was even in the middle of what proved to be an engrossing study, he had a sizable personal investment. He repeatedly wrote to Bissell and Eveleth asking for token payments on the work he was doing. He never received a satisfactory reply.

His patience exhausted, he requested Rev. Anson Sheldon of New Haven to see if he could not collect some money from the New York lawyers. At this time the amount of the bill was precisely \$526.08.

At last, the survey being completed, Silliman placed the report in the hands of a friend in New York with instructions not to deliver it until there had been a cash payment of \$526.08.

The Rev. Sheldon, after being exposed to the bub-

THE VALLEY OF OIL

bling optimism of Messrs. Bissell and Eveleth, expressed a willingness to purchase some of the stock. He had no money; but a sale was a sale, and perhaps a sale to a man of the cloth might lead them to other prospects—individuals who might have cash. So the sale was made, and the clergyman's note was accepted in payment.

At long last the Silliman report was secured. It was favorable and the Pennsylvania Rock Oil Company had it printed and distributed. It created some favorable impression but still the sale of the stock lagged. There had been many corporation failures at this time; money was scarce and tight, and investors had long since learned to be cautious.

Frantically, Bissell and Eveleth attempted to sell some of their stock. They had one man almost sold on the idea of buying some of the stock at \$2.50 a share. When they met the man to conclude the sale, they were informed that the man was no longer interested. It seemed that young Crosby, imbued likewise with the idea of getting rid of his stock, had offered the man the same stock at fifty cents a share.

It is not unlikely that the experience left the two attorneys discouraged and dejected. They were likewise filled with an earnest and understandable desire to choke the fat throat of young Crosby.

The Reverend Sheldon was probably the man who saved the day. Sheldon was given to enthusiasms. He had time on his hands, an investment to protect. Further, he believed that the oil springs could be developed and

MONEY TROUBLE

that the stock in the Pennsylvania Rock Oil Company might eventually reach par value.

With enthusiasm he informed a friend, James M. Townsend, president of the City Bank of New Haven, of what he had been doing. Townsend, a crisp, keen banker, listened with interest and decided to look into the matter.

He investigated Bissell and Eveleth, found little to make him believe that the two men were other than importunate sharpers. He discovered that Bissell and Eveleth had made an arrangement with Lyman & Havens, under the date of November 26, 1856, to drill an artesian well on the site of the oil spring. The lease was for ten years and Lyman & Havens were to receive a royalty ranging from fifteen to twenty-two cents a gallon for every bit of oil raised through their efforts to "bore, dig, or mine" for the precious liquid. Before work could be launched on this project, Lyman & Havens failed.

Bissell and Eveleth were persevering, if nothing else. They had many difficulties, affairs that evidently grew out of their lack of knowledge of the law. They wakened one morning to realize that out-of-state stock companies could not legally own property in Pennsylvania and that such property was even subject to confiscation. The original conveyance of the property had never been recorded, thanks to their sloppy way of doing business. They tore up the conveyance, executed

THE VALLEY OF OIL

a deed and lease to Asabel Pierpont and one William Ives. Pierpont's role in the drama was a minor one, although he was later listed as a director in the Seneca Oil Company. He came to Titusville with Ives and returned with a proposal that an investment of \$500 would make it possible to increase the flow of oil from the springs, a proposal that was received coldly as the company treasury was empty at the time. Ives made a visit and paid Brewer & Watson what they discovered to be worthless stock in New Haven enterprises.

James M. Townsend knew these and also other facts. He was a practical, cold-blooded, direct man, and blessed with shrewdness. Privately he consulted with Prof. Silliman and found ample confirmation of the inherent value of the patroleum.

He did not trust the firm of lawyers. He talked with them and eventually, out of many conferences, it was decided that a new company should be formed under new management. Townsend crisply reminded his associates that he still had some doubt as to the possibilities of the project and, as a consequence, he would refuse to have his name publicly associated with the new company. As a banker, a respectable and conservative citizen, he could ill afford to be associated with a stock promotion that might turn out to be, to say the least, dubious.

The Seneca Oil Company came into being. It had a capitalization of \$300,000 with 12,000 shares of stock at a value of \$25 each. The date was September 18, 1855.

MONEY TROUBLE

Professor Silliman was named as president of the company.

In December of the same year, Townsend decided to do something about another failure of the firm of Bissell & Eveleth. He had found that the wives of Eben Watson and James Rynd of Pittsburgh had never signed the original conveyances made by Brewer, Watson & Co. In the Tontine Hotel of New Haven he had made the acquaintance of Edwin L. Drake, tall, serious and, for the time being, out of employment. Drake, however, did possess a bank balance of \$200 and a railroad pass which permitted him to travel without cost on any railroad. Townsend promptly sold Drake stock to the value of \$200. He engaged Drake to secure the missing signatures and thus utilize his free traveling privilege.

Drake, anxious to be employed, accepted the assignment, went to Pittsburgh and secured the signatures. He visited the salt wells at Tarentum where he discussed artesian well drilling with several men. He also visited Titusville . . . on a cold winter night.

Hearing Drake's report, Townsend acted swiftly. He called a meeting of the local directors of the Seneca Oil Company, executed a lease between the Pennsylvania Rock Oil Company to Edwin L. Drake and a man named Bowditch—which lease was then assigned to the Seneca Oil Company. In the surprise move, out-of-town stockholders and directors were not given a voice in the transfer and shake-up. Watson and Bissell protested most vigorously and threatened an injunction. A

THE VALLEY OF OIL

compromise was smoothly effected by James M. Townsend, who permitted a slight change in the royalty arrangements with Drake and Bowditch. Never was there a time, however, when the domination of James M. Townsend was seriously threatened. Keeping in the background, insofar as the public was concerned, he was in the saddle and he proposed to stay there.

Drake was hired at an annual salary of \$1,000. He was instructed by Townsend to go to Titusville and stay there. He was to use every possible means to increase the flow of oil and, at the same time, to keep expenses as low as possible.

"I will send your mail addressed to 'Colonel' Drake," he informed Drake as they parted. "That will serve to build up your prestige and it may help you to establish credit which the company can use to advantage if necessary."

And that was how Edwin L. Drake acquired his military title.

CHAPTER VII

Success

The day had been warm and the road from Erie to Titusville was dry and dusty. The stage had made very good time and the noon meal at Union City had been tolerable.

It was May 15, 1858, and Elija Benedict, the venerable clerk of the American House had moved his favorite chair to the sidewalk. For dinner, there had been a fine mess of smoked pork shoulder and dandelion greens. Elija was especially fond of this combination, particularly when it was topped off with a big cup of sassafras tea, hot, fragrant, and faintly amber-colored. Peter Wilson, the druggist, might scoff as he would, and Dr. Brewer might laugh about it, but Elija Benedict knew that dandelion greens and sassafras tea represented the finest of all spring tonics.

THE VALLEY OF OIL

He sighed gustily and belched without shame. He nodded a drowsy greeting to R. D. Fletcher, as the dry-goods store man passed briskly by with a cheerful word.

The tall, black-whiskered man leaned back on the cushions and whistled tunelessly. For the first time in months, his wife mused, he seemed at peace—almost cheerful.

The stage team trotted briskly through a scatter of unpainted houses at Hydetown. Ahead stretched a couple of miles of level land. To the right, a wide creek cut through a meadow where fat cows were grazing. The green of the grass was dotted with the gold of dandelion blooms.

He pointed. "That's Oil Creek, Laura. Another two or three miles, if I remember correctly, and we will be in Titusville. It's not much of a town, but I hope you will like it."

The stage rumbled down West Spring Street. The horses were sweating as they pulled up in front of the American House. Elija wakened with a start, creaked from his chair and came out toward the stage. Drake and his wife and child alighted. Grumbling, Benedict carried in their bags. There was a trunk, too, but that was too heavy for him to manage alone. He called querulously for Sid McGinley, who limped out and helped to carry it in.

Benedict remembered the man signing the fly-specked register. Man named Drake, he recalled. The

man was well-dressed just as he had been before. He inquired about accommodations for himself and his family. Arrangements were quickly completed—rooms and meals for the entire family at \$6.50 a week.

“Man must be rollin’ in money to pay that much,” Elija informed Sid as they carried the heavy trunk to a room upstairs.

When he hobbled downstairs he looked at the register again and scratched his head in puzzlement. He flipped back a few pages of the register and consulted an earlier entry.

“That’s funny,” he said to himself. “First off, this man was plain Edwin L. Drake. Now he’s Colonel Edwin L. Drake. Musta been to the wars since he was here.” The military title never failed to command the utmost respect from Elija Benedict, as it did from most of the villagers.

Drake had already met Dr. Francis Brewer and Jonathan Watson. Brewer, in particular, was attracted to Drake. Not only did he like Drake but he also respected him. Brewer, bearing in mind the acid comments of his father in regard to the backers of the Pennsylvania Rock Oil Company, still had a settled conviction that even the men behind the Seneca Rock Oil Company were no better than they should be. Their motives were strongly suspect and he often stated his position in plain and profane language. But, even if Drake was associated with them, Brewer nevertheless felt that Drake was sincere and honest.



Drake's arrival made something of a stir in the village. When informed that he represented outside interests and that he had been engaged to increase the flow of oil at the site of the Brewer & Watson mills, they were inclined to grin. They had heard gossip about the manner in which the spring area had been originally purchased. That it was possible to increase the flow of oil, they doubted. Angier, beyond doubt, had dispelled that theory. He had worked hard and long hours. Standing in the water had given him a prime case of rheumatism, too. He often complained that two of the town's most

eminent citizens had given him a pretty scurvy deal, and everyone knew he referred to Dr. Brewer and Jonathan Watson.

Under these circumstances, the citizens accepted Drake and his mission with some reservations. Drake was not a genial man. He was rather shy and retiring. He knew how Dr. Brewer felt.

In the entire city he had only three friends. One, of course, was Dr. Brewer. Ruel D. Fletcher, the drygoods man, found something likable in Drake. They were both silent men, chary of expressing opinions. They had other things in common, such as the enjoyment of a slow, deliberate game of checkers at the end of a day.

Peter Wilson, tall, lean, talkative druggist, was another friend. Wilson and Fletcher were close friends. Drake formed the habit of dropping in at the little drugstore of an evening. Wilson was always glad to have someone to talk to, or rather someone who would listen to him talk. He was unmarried, cheerful, and endowed with a dry, crackling humor. He introduced Drake to Pittsburgh stogies, long, black, strong, and cheap cigars. At first Drake didn't like them, but as time passed he came to enjoy them thoroughly.

There was a room partitioned off at the back of the Wilson drugstore and it was here that Wilson kept his modest supply of drugs, compounded prescriptions, and made his own ointments, tonics, and pills. The little enclosure contained two chairs and a padded bench. It was a warm, comfortable place to spend a winter's eve-

THE VALLEY OF OIL

ning. Ruel Fletcher would drop in and join Drake and Wilson. A checker game would usually be in progress. When a customer entered and called Wilson to the front of the store, the odd man would take his place at the checker board. Of the three men, Fletcher was a shade the better player. At the end of the evening, Peter Wilson would perform a rite in which all three found special comfort. He would produce a jug of Allegheny Rye and three glasses. Into each glass he would pour a generous three fingers of amber fluid. The men would soberly lift their glasses and toss off the stirrup cup.

Drake confided in Wilson and Fletcher, told them of his plans. They believed in what he proposed to do. He told them precisely what he later wrote: "After my first visit to the oil springs, I knew what I was going to do. Within ten minutes after my arrival upon the ground with Dr Brewer, I had made up my mind that the oil could be obtained in large quantities by boring as for salt water."

He had visited salt wells at Syracuse, New York and those at Tarentum and he was familiar with the mechanics of salt well drilling.

The people in New Haven, however, were anxious to have several barrels of oil shipped to them. They had a market for some of the oil; and besides, the oil itself would be visible evidence that there was some tangible substance behind the Seneca Oil Company. It might, in the opinion of Townsend, also help in the sale of the stock.

SUCCESS

Drake hired men to enlarge the original oil spring; he also had other springs dug. Before August, he had shipped two forty-five-gallon barrels of the oil to Pierpont, at New Haven.

Drake supervised the work, always immaculately attired and wearing a tall silk hat and frock coat. To drill a well, power was needed. He made an oral arrangement with Brewer & Watson for some of the power from the mill dam and a most unsatisfactory arrangement it proved, he was to discover. Townsend supplied him with the funds necessary to carry out the work, a matter of \$1990.58 for the first year. Wages were the usual one dollar a day, for twelve hours' labor, a local rate, and plenty of strong, able-bodied men were eager for cash employment.

Timbers were sawed at the mill for the derrick and buildings. Drake constructed one building, 60 by 30 feet wide, and had it ready by September of the first year.

While he knew the mechanics of drilling an artesian well, he recognized that it was a highly skilled endeavor and that an experienced well driller was required.

He borrowed a horse from Ruel Fletcher and rode over the hills to Tarentum. This was in July of 1858. He found a capable and willing man, contracted with him to come to Titusville and drill a five-inch hole, 1,000 feet deep, at a fee of one dollar per foot. Under the terms of the agreement, according to Drake's own words "the driller would forfeit his pay if, by his own

THE VALLEY OF OIL

neglect, he did not succeed in reaching the depth of 1,000 feet." The only cash that was to change hands was enough money to feed the driller and his boy and enough money to pay for the man's eating tobacco. It was a shrewd bargain. Yet, Drake must have made the arrangement with some trepidation. Townsend's letters were few and far between. Each of them expressed some impatience at the progress being made. Some of the communications undoubtedly expressed a soggy reluctance to advance further funds on the project. Back in New Haven, Townsend had other irons in the fire; he looked, in some degree, on the oil venture as purely speculative and one into which not too much money should be invested. Nevertheless, Drake now believed so firmly that an artesian well would enable him to reach the source of the petroleum that he was willing to take a certain risk.

The first contract driller did not appear. Drake was furious. He had already started operations, using power from the dam. On August 16, 1858, he wrote: "In sinking our well last week we struck a large vein of oil but the same thrust of the spade opened a vein of water that drove the men out of the well and I shall not try to dig by hand any more as I am satisfied that boring is the cheapest. . . . I have abandoned the idea of boring and pumping by water, as I could not have the exclusive use of the power, but must be subject to the sawyer, the turner, and the blacksmith; so after consulting the best business men—that is salt and oil men—at Tarentum,

I have contracted for an engine to be ready for boring by the first of September. The engine will cost \$500 in Erie which is about \$100 less than the same or one like it would cost at the East.

"When I get that I shall be independent of the lumber Co. I have had my pump stopped ten days this month and at the rate they repair it will take all the month of September to repair the flumes and wheels and then I am liable to be stopped at any time which will not answer."

In the same letter, he reminds the New Haven backers that he has expended money shrewdly, having accomplished more with \$500 than most people would with \$1,000. He asked that \$1,000 be raised and placed to his credit in a Meadville bank.

On August 19 he approached Ruel Fletcher for the loan of his saddle horse to ride to Pittsburgh and Tarentum, in another search for a salt well driller. Fletcher genially agreed. Drake grinned wryly as he passed on a little information to Wilson and Fletcher: "The old lumber company begin to think they did not retain the best of the property when they sold out the oil springs. Old Mr. Brewer is here now and he says he is sorry they sold that piece of land or gave that lease; but let them whine, there is more money in that little island than there is in all the 1200 acres of the lumber company's land."

Fletcher said nothing, but he smiled and stroked his beard. Wilson chuckled sardonically. "Edwin, you may

THE VALLEY OF OIL

be a great optimist, for all I know," he said. "But, you may be right and I'd like to see you prove it."

"If I have any luck and a little more backing from the East I can do that very thing," Drake said solemnly, as he lighted a stogie. That afternoon he left for Pittsburgh. He carried with him a few orders from Fletcher and Wilson to some of their wholesale people. He was a good rider, sat his horse well. He pushed steadily ahead and reached Pittsburgh, 125 miles away, in two days.

He found another driller at Tarentum, one who promised to arrive in Titusville shortly. Drake returned in a most hopeful mood, rushed work on the buildings, and had timbers sawed and framed for a derrick. Again, he was disappointed. The man broke his promise. Drake seldom swore. But that night he was downright angry.

He told Fletcher and Wilson what had happened. "Three days ago this man was to arrive. By God, I believe all the salt well drillers are damned liars! Here it is early in September and we haven't started to drill. My people in New Haven are raising hell and I can't say I blame them."

Wilson and Fletcher gave him sound counsel. They urged him to go again to Tarentum. Fletcher told him that he could use the saddle horse again; and so on September 10, Drake again traveled the rough road to Pittsburgh and Tarentum. There he talked with William Smith, a competent driller, and made arrangements for him to come to Titusville. A salt well owner named

Peterson vouched for Smith's integrity. Smith, however, could not leave until he had completed a contract on which he was then engaged. On November 17, Peterson wrote that Smith would shortly be ready to come, but that he would advise waiting until spring before drilling operations started. It was a bitter pill for Drake to swallow; he was becoming more and more impatient. Yet he knew the rigors of winter in northwestern Pennsylvania and he recognized that Peterson's counsel was essentially sound. Drake looked sadly at the little steam engine installed on a wood-burning boiler, which had already arrived.

The winter was endless. Instead of deep snow and sub-zero weather, it rained four days out of every week. Drake was restless, impatient, miserable. He walked the distance from the American House to the sawmill every day. Often he was soaked to the skin when he returned. His back hurt like a toothache most of the time. The liniment Peter Wilson compounded did not help very much; nor did the porous plasters he used, which usually only blistered the skin and required great care in removal.

In his hotel rooms he was quiet. Laura Drake, a patient, cheerful, industrious soul did everything she could to cheer him. Dr. Brewer, sensing that Drake was unwell, talked to him about his physical ailment and prescribed a tonic that helped a little.

As spring neared, Drake became more cheerful. He even joked a little with Elija Benedict, to that ancient's

THE VALLEY OF OIL

delight. He took Benedict by the arm and steered him into the bar one day early in April and bought him a drink of brandy. It was good brandy and Drake smacked his lips after tossing off his glass.

"Sid, I'd like to buy a bottle of that brandy," he said with a smile. "I have a very special use for it."

Drake was a temperate man as a rule. But that night, after the Wilson drugstore was locked, he insisted that the proprietor and Ruel Fletcher have a second drink of the prime brandy.

"This is by way of being a sort of celebration," he said somewhat awkwardly and shyly. "I had a letter from Peterson of Tarentum today. My man, William Smith, will be here about the ninth. He has had tools made of iron and steel; he's to bring his family with him and will live right on the property. Soon we'll be drilling for that vein of oil that has been so elusive all these years."

Fletcher and Wilson were persuaded, drank a second tumbler of the warming liquid, wished their friend the best of luck. They knew that once the driller arrived they would not see Drake very often as he would be constantly at the scene of the drilling. They would miss him.

Smith arrived on schedule on April 9. With him he brought his family. He and Drake hit it off immediately. The Smith boys, James and Samuel, helped their father. Samuel was only fifteen, but a strong, wiry youth and industrious. Smith was more than an ordinary well

driller. He was a competent blacksmith and a fine tool-maker. The family settled in a frame building on the oil spring premises, with Smith's daughter Margaret, as housekeeper.

Early in May, the work of actual drilling started. The citizens of Titusville were not especially startled. They were, as a rule, more interested in the mechanical problems involved and the methods which were being used, rather than in the objective. It has been the fashion of a few oil field historians to claim that the citizens scoffed mightily at Drake and his dream, and that the well was referred to as "Crazy Drake's Folly." Dig as you will into history, you can find no evidence to support this statement. Undoubtedly, many people did not believe that it was possible to drill a hole down to the source of the oil. But there is no record that anyone ever called Edwin L. Drake, "Crazy Drake." He was known as a close friend of two of the town's most respected citizens, Fletcher and Wilson. He had a reputation for paying his bills, for being fair with his laboring men. Quiet as to demeanor, there was something about Drake that commanded respect. There was a calm, assured dignity in his carriage. Never a genial man, he was, nevertheless, gentle and courteous to all with whom he came in contact.

Steam spurted from the little engine every day; blue smoke drifted into the summer air. The derrick was a busy scene of activity. Work progressed slowly. The drill penetrated a few feet when quicksand was en-

THE VALLEY OF OIL

countered. Smith, experienced as a salt well driller, had never encountered a similar situation. It was maddening. The drill would penetrate the quicksand readily, but when it was withdrawn, the hole promptly filled. It was like sticking a finger into a pail of water, so Billy Smith angrily complained. Easy enough to do, but when you pulled it out, where in hell was the hole! For days there was no solution to the problem.

It was Edwin L. Drake and not the experienced driller of wells who came up with the solution. Had he patented the device he suggested, his fortune would have been secure for as long as he lived and for his heirs long after. He suggested that they secure heavy iron pipe and pound it down through the quicksand until solid rock was encountered. Once this was done, he said, they could then remove the quicksand and resume drilling.

Getting the heavy pipe was another matter. It meant a trip to Pittsburgh. Further, it meant that the pipe would have to be paid for with cash in advance.

There was a new dignity about Drake as he explained his difficulty to Wilson and Ruel Fletcher. He was awkward about getting to the point.

"My people in New Haven," he started somewhat falteringly, "my people won't send me any more money. I'm strapped. I need money to pay for this pipe. I've written to New Haven begging for an extra \$500 and they don't even answer my letters. I *know* the boring will strike oil. I'd gamble my life on it. I can't

understand why Mr. Townsend doesn't answer me. I've written the directors too, and they also remain silent.

"Could—would you men go on my note for \$500 at the Dick Bank in Meadville? I'll guarantee to pay it just as soon as I can. I must complete this well and I can't do it without funds."

Ruel Fletcher's hand swept through his beard and he smiled broadly. "I'm willing, if Peter will go along," he said.

"By God, of course I will!" Wilson exclaimed. "Edwin, we have faith in you even if we haven't in your precious friends in New Haven. Glad to be able to do you a favor."

Emotion choked Drake. He swallowed hard, shook hands with his friends, almost speechless in his gratitude. The note was signed, the proceeds credited to Edwin L. Drake. It is significant that the note was signed by Drake as an individual, not as the agent for the Seneca Oil Company.

Early in August, 1859, the pipe arrived from Pittsburgh. Smith and his sons, with Drake hovering about, laboriously drove the pipe through thirty-six feet of the quicksand to the bedrock. On the 14th of August, the roughly-hewn walking beam again resumed its measured nodding and the drill bounced against solid rock. The drill made slow but steady downward progress. The device of drivepipe proved a thorough success. It is still used in oil fields where quicksand is encountered.

THE VALLEY OF OIL

Saturday afternoon, August 28, 1859, the drill had gone down to a depth of sixty-nine and one-half feet. Coarse sand was encountered just as the tools were pulled from the hole that night.

Sunday, August 29, was a blistering hot day. In the valley the heat was almost unbearable. Smith had slept late that morning. After breakfast he had planned to take Samuel up the creek and go for a swim. After that, maybe they would fish awhile and see if they couldn't get a mess of bass for supper. He shaved, a weekly task he heartily disliked, put on a clean shirt and strolled over to the derrick.

He peered down the drilled hole, thought that he saw fluid eight or ten feet down the drive pipe. He looked around, found a piece of tin spouting, closed one end of it, attached a rope to the other end and lowered it. He raised the tube and found it full of crude oil. He poured it out, tried again and again, always bringing the tube to the surface filled with prime oil.

He ran outside the derrick. "Sammy! Sammy!" he yelled.

Sammy came. "Sammy," William Smith said quietly, "you run like hell to town and go to the American House and get Mr. Drake. You tell him, Sammy, that there is oil in the well—that we have struck the vein! And hurry!"

Sammy needed no urging. He trotted up the road, dust spurting from his bare feet. He was puffing, but

filled with youthful dignity, when he arrived at the American House.

He gave his breathless and deathless news to Edwin L. Drake. Drake was impassive, unexcited. He gave the boy a dime and quietly said, "Tell your father, Samuel, that I will be down presently."

When Drake arrived at the well, Smith and the boys were hastily rigging up some pumping apparatus. There was steam in the boiler. The pumping apparatus was started; the well began to produce oil at a rate which came to twenty barrels a day. Drake nodded in quiet satisfaction. His dream had become a reality, his theory was justified.

He cautioned Smith about letting too many of the villagers near the well and walked briskly toward the town, busy with his thoughts. He must, he assured himself, notify the people in New Haven. Yes, he'd better let that chap Bissell know about it, too. He'd send Elija Benedict with a note to Dr. Brewer and after that he would personally call on Ruel Fletcher and Peter Wilson. They would be very happy to know that their friend had, at long last, succeeded in his venture.

He was whistling softly when he entered the American House. "Happy, Colonel Drake?" asked Elija Benedict.

"Very happy, Elija!" Drake said with a smile, as he hurried up the stairs.

He must tell Laura, first of all. She too, had waited a weary time for cheerful news.

THE VALLEY OF OIL

When I knew Samuel Smith he was eighty years old, a tall, gaunt, rugged old man who could still do a hard day's work. He even rode a bicycle, sitting straight as a ramrod on the saddle, his long arms stretched out full length to the handle-bars. He told me much of what he remembered of the drilling of the first oil well.

"You know," he said somewhat wistfully one day, "you know, my father had promised to go fishing with me the Sunday they found oil in the well. Well, sir, we never did get to go fishing together after that. One of the reasons I never liked the oil business and one of the reasons I never did follow it, I guess, was because it cheated me out of some fishing with my father."

CHAPTER VIII

Aftermath

DISCOVERY OF A SUBTERRANEAN FOUNTAIN OF OIL

Titusville, September 8, 1859—Perhaps you will recollect that in 1854, there was organized in the city of New York a company under the name of the Pennsylvania Rock Oil Company, which for some good reason passed into the hands of some New Haven capitalists, and was by them removed to New Haven. In 1858 the directors leased the grounds and springs to E. L. Drake, well-known on the New Haven railroad. He came out here in May of last year, commenced to bore for salt, or to find the source of the oil, which is so common along the banks of Oil Creek. Last week at the depth of 71 feet, he struck a fissure in the rock through which he was boring. When to the surprise and joy of everyone concerned, he found he had tapped a vein of water and oil yielding 400 gallons of oil every 24 hours.

The pumps now in use throw only five gallons per

THE VALLEY OF OIL

minute of oil and water into a large vat, when the oil rises to the top, and the water runs out from the bottom. In a few days, they will have a pump of three times the capacity of the one now in use, and then from 10 to 12 hundred gallons of oil will be the daily yield.

The excitement attendant on the discovery of this vast source of oil was fully equal to what I ever saw in California when a large lump of gold was accidentally turned out.

The springs along the stream, I understand, have been most steadily taken up or secured by Brewer & Watson, the parties who formerly owned the one now in operation.

“MEDICUS.”

New York Tribune

The signature leads one to the logical conclusion that the news item must have been penned by the alert Dr. Francis Brewer. If so, it was a shrewd piece of public relations, calculated to redound to the profit of Brewer & Watson.

The *Venango Spectator*, a weekly paper published at Franklin, Pennsylvania, reproduced the *Tribune* story on September 21. Editorially, the paper stated that the well was located in Venango County and that it was understood that other wells would be drilled in the near future.

The esteemed editor of the Franklin weekly must have been a conservative soul, or misinformed. He was, at least, reserved.

Everyone but Edwin L. Drake, it appeared, sensed that there were vast potentialities involved with the dis-

AFTERMATH

covery of oil through artesian drilling. Above all, Jonathan Watson took the tide at its flood. He mounted a horse and rode, hell-for-leather, down the valley. He carried in his saddlebags blank leases and he leased land as fast as he could. When it was necessary, he gave surprised and somewhat skeptical farmers a cash bonus for signing on the dotted line. One of the first oil leases recorded in Venango County was dated September 1, 1859, leasing property owned by John Rynd and J. D. Angier to Jonathan Watson.

Angier, who had unsuccessfully tried to increase the flow of oil where the well was drilled, discovered about the success of the well after he had already leased his land to Watson. Crippled with rheumatism, old and bitter, he was furious.

"The dirty, damned crooks!" he cackled shrilly. "Me, I done all the hard work. Now the bastards have drilled a hole and found the oil. All I get out of it is a paper that lets that whiskered old slicker, Watson, drill my own land for more oil. An honest man's got no chance against these money men. Mark my words!"

Angier was wrong. Poor men—honest men, did have a chance. Titusville started a mushroom growth that amazed, confused, and alternately delighted and dismayed its residents. People flocked in from all over the world, hungry to get into the oil business, to make easy wealth, to get in on the ground floor. Some succeeded beyond their most ambitious dreams.

The excitement swept down Oil Creek. Farm values

THE VALLEY OF OIL

zoomed under the impetus of leasing. The original men involved in the formation of the first two oil companies managed to prosper. George Bissell arrived in Titusville early in November. Townsend, always conservative and shrewd, arrived from New Haven. For personal reasons he did not let the news of the oil strike be known in New Haven for several weeks. The directors of the Seneca Oil Company arrived. They slapped Drake on the back, complimented him. They were in such a genial mood that they didn't even bother to scold him when one of the workmen entered the pump house with a lighted candle and burned down the original derrick and buildings and over \$12,000 worth of crude oil went up in smoke. Drake was, for the moment, a hero, a man who had magically tapped a source of great wealth.

Bissell wrote his wife that Drake had been offered \$150,000 for his lease and had refused it. "When other springs are opened, the profit will be millions," he wrote. "The whole western country is thronging here and fabulous prices are offered for lands in this vicinity where there is a prospect of getting oil . . . Had Eveleth and I held to our lands, in five years we should have been the richest men in New York. As it is, we shall do well, very well in any possible contingency."

When capitalists could find experienced drillers and steam engines, new wells were immediately started. Engines were expensive, difficult to find and hard to bring into the oil fields. Some men, notably farm boys,

AFTERMATH

refused to wait. They drilled dozens of wells with spring poles, by hand. It was hard work, but when oil could be found under one hundred feet, the labor involved was generously rewarded. I have known several wealthy oil men who got their start in life by "kicking"



down their first wells. Yes, it was a day when even poor boys could succeed, if they had courage and a willingness to work.

Titusville grew apace. The news had spread fast. Billy Smith wrote a hasty letter to Peterson, at Tarentum: "Come quick, there's oceans of oil!" Elija Benedict, hustled and hectored by strangers demanding

THE VALLEY OF OIL

rooms, food, drink, and shelter, couldn't stand it any more. He quit his job. Life was getting too complicated for him.

Sid, the bartender, was almost ready to quit, too. "Goddlemighty, 'Lija," he exploded. "These here strangers are asking for vintage wine, whatever that is! Yesterday a man wearing a diamond as big as my thumb, was downright put out when I told him I'd never heard of Irish whiskey. Huh! Good old Pittsburgh rye ain't good enough for these visitors. Raised the price of drinks three times in the last week and no one but the old timers ever complains. This here hotel is a gold mine, that's what it is."

As the town grew, more and more derricks spotted the valley of petroleum. In hundreds of scattered clearings men were probing for oil and finding it. Farmers neglected their crops, watched the progress of wells being drilled on their properties. Men who owned teams and wagons earned more wages in a single day than they had been accustomed to earn in hard cash in a year.

Ruel Fletcher, Wilson, and Drake seldom had a chance to get together these busy days and hectic nights. The three of them shared an opinion that the oil strikes would only be limited and that soon the excitement would be over. Not one of the three made an effort to secure oil lands. Of the three, Wilson and Fletcher managed to cash in handsomely. Their retail businesses increased by leaps and bounds. They had extreme difficulty, as had every other merchant, in

AFTERMATH

keeping goods on their shelves. Even when competition arrived and set up shop, they continued to do more and more business.

Banks were built in Titusville and started to do business. An Opera House was built; new hotels were erected and filled the first day they were open to business. There was a rumor that a newspaper was about to be launched, that a railroad was being built into the city. Men who for many years had never had money in their pockets, frequently became successful oil men, worth hundreds of thousands of dollars. Gambling was open; women with paint on their provocative faces and the devil in their eyes, walked the streets seeking customers. The clergy, aroused at the drunkenness and sin, preached sermons to almost empty pews. Everyone was working seven days a week, seeking their fortunes. Brick buildings were erected, the brick being hauled into the city from Erie, some fifty miles away. It was difficult, Peter Wilson complained, to walk down the crowded streets and encounter a familiar face.

This was a new world. And there were new values. From a village, the town became a city with a population of 15,000. News of new and rich oil strikes filtered in daily. Fortunes were being made. And lost! Not all of the wells proved to be profitable investments. Machine shops and blacksmith shops were established and were busy twenty-four hours a day. Several cooperage shops hungrily demanded timber for oak staves and were willing to pay top prices for the staves. Farmers, far

THE VALLEY OF OIL

removed from the oil area—farmers living out along Church Run, away out in Cherrytree Township, at East Titusville, and up toward the village of Spartansburg—started to chop down their oak groves. Their farm produce found a ready market in Titusville at prices they had never before believed possible.

Jonathan Watson rapidly accumulated a fortune. He and Brewer sold their mills in 1860, devoted their joint time and energy to the development of an expanding oil business. In 1864, at the very top of a speculative boom, they sold out. Watson is reputed to have moved to Rochester with three millions of dollars. Always an energetic soul, he hungered for the oil industry. He returned and again engaged in the production of oil. He built a beautiful home in Titusville on East Main Street, a home that still stands graciously on perfectly landscaped grounds.

Then he encountered ill-luck. He drilled many deep wells in a vain search for deeper oil-producing sands. In November of 1876 he failed, with liabilities of over \$100,000. At his death he was practically penniless.

Men who have smelled oil, worked with it, drilled for it, find other lines of endeavor tame and lacking in savor. They usually return to their old love—and sometimes life is good to them. Again, fortune may turn against them in a most fickle manner.

James M. Townsend, the New Haven banker, the moving spirit in the Seneca Oil Company, died full of honor. His brief entry into the oil industry was not

AFTERMATH

especially profitable to him. His influence was a constructive one and his honesty has been unquestioned, aside from the opinions of one or two oil historians. He had, it seems, always something of a suspicion as to the moral integrity of certain of the men concerned in the first two oil companies. Perhaps his suspicion was not without foundation. Yet, it was Townsend who fearlessly and intelligently brought the conflicting interests into an honest quorum. And it was Townsend who must be credited, among other things, with selecting Drake and sending him to Titusville, sending him without special instructions. He had faith in Drake.

George H. Bissell was a hard man to keep down. He, too, died full of wealth. He organized the Central Petroleum Company in 1864. The company owned and developed the famous and fabulously rich McClintock Farm on the lower stretches of the valley of petroleum. He also owned the Bissell Bank at Petroleum Center. He was still profitably engaged in the oil business at the time of his death in 1884. He died in New York City.

Many of the pioneers acquired wealth in the mad scramble for oil. Some of them hung on to it, some lost their health, their lives or their honor in gaining that wealth. Others lost their wealth but retained their sanity and their capacity to laugh.

As wealth multiplied, as the oil industry emerged from its swaddling clothes and became a fat, loud-voiced, fast-growing infant of unpredictable temper, one wonders what part Edwin L. Drake was playing.

CHAPTER IX

Exit, Edwin L. Drake

A long time had passed since Drake, Fletcher and Peter Wilson had chatted in private. Drake had been involved in the urgencies incident to his management of the oil property. He was drilling more wells on the tract. He was forced to exert himself tremendously and constantly to find transportation for the oil that was being produced. It all had to be shipped in flat boats down Oil Creek to Oil City and thence to Pittsburgh.

Above all he was hard put to it to find a profitable market for the oil. Samuel M. Kier, of Pittsburgh, absorbed some of it. In Pittsburgh Drake met George M. Mowbray, a New York chemist, later to become famous as one of the pioneer oil refiners. It was through

EXIT, EDWIN L. DRAKE

him that Drake first heard of the firm of Schieffelin Brothers, drug and chemical people, of New York. He met members of the firm and they agreed to sell all of the oil he could ship to New York, on a commission basis. This plan relieved Drake of some responsibilities.

Meantime, the affairs of the Seneca Oil Company were in bad shape. Drake, in all justice to his memory, was not entirely to blame for this condition. He had, beyond doubt, taken the advice of certain of its directors, and the advice had often proven worthless. In March of 1860, he was relieved of the management, a serious and telling blow to his pride. Ruel Fletcher hunted him up when he heard the news and told him not to worry. Drake flushed, felt uncomfortable, but appreciated the words of comfort from an old friend.

Ruel Fletcher was never one to render purely lip service to any friend. He saw to it that Edwin L. Drake was elected a justice of the peace, a post that enabled him to earn many fees. Most of the documents relating to the transfer of oil property had to be drawn by a justice of the peace.

The Schieffelins made him their representative and it is estimated that he earned about \$3,000 a year from this source alone. He had an equity in a comfortable home; he lived quietly. His health was still poor, but he seldom mentioned the pain he suffered. Life was drab. Daily he was drawing and affixing the seal of his office to papers covering deals that involved hundreds of thousands of dollars. It had not been pleasant to be

THE VALLEY OF OIL

caught in the backwash of the waves of prosperity he had created. He was proud and sensitive and he was fully aware that he had failed to take full and glorious advantage of a situation that might have made a more eager and a more aggressive man rich beyond his fondest dreams. Without doubt, he brooded over such a circumstance, not entirely of his own making.

Eventually flowing oil wells caused the price of oil to slide down to unprofitable levels. Oil sold in 1861 as low as ten cents a barrel. The Seneca Oil Company wells were forced to shut down that year. It was impossible to operate them profitably because of the twelve cents a gallon royalty the company was forced to pay to the Pennsylvania Rock Oil Company. The latter then relinquished its royalty clause with some reservations.

In the spring of 1862 James Townsend Clark of New Haven was sent to Titusville by the Seneca Oil Company to start up the wells. He remained until the holidays and drilled one new oil well, entirely unsuccessful. He returned to New Haven at Christmas time and Titusville saw him no more. In the spring of 1864 a man named Logan, representing the Seneca Oil Company, came to Titusville to liquidate the holdings of the company. In March of that year the property was sold to George W. Steele of Brooklyn, N. Y., for \$10,000, and the affairs of the company were legally wound up.

So expired the Seneca Oil Company. Not one of its stockholders ever received a dollar of profit from it.

In the fall of 1864, efforts were made to revive the

EXIT, EDWIN L. DRAKE

property under the ownership of the Watson Petroleum Company of New York. As an oil company preparing to re-operate the world's original oil property, the stock had a rather wide acceptance from gullible investors. Billy Smith was recalled from Tarentum. He tried every scheme he knew to make the oil wells produce profitably, and failed; so did the company in the bursting of the speculative bubble of 1866.

The land was seized because the owners could not pay back taxes of \$4.37, and was bid in by the commissioners of Venango County.

Drake sensed what was happening. He was uneasy, acutely unhappy.

One night in 1863 he surprised Peter Wilson and Ruel Fletcher by dropping in at the old back room of Wilson's drugstore. The bond between the three men was still strong.

Fletcher and Drake played a dull and desultory game of checkers. Wilson was busy waiting on his trade. He had hospitably placed a bottle of rye on the table, but neither Drake nor Fletcher had touched it. Each man was deep in thoughts other than checkers.

At long last Wilson joined them. "God, I'm tired!" he said as he dropped wearily on the padded bench. He reached over, poured himself a liberal drink of the rye and downed it with the deftness that comes of long practice. He smacked his lips, lighted a Pittsburgh stogie and blew a stream of smoke into the air.

THE VALLEY OF OIL

"How have you been, Edwin?" he asked.

Drake pushed back his chair, forgot the checker game. His face was lined with care, seamed with pain from that infernal and everlasting trouble in his back. Mornings, he walked stiffly until finally the pain lessened.

He looked fondly and affectionately at his old friends. These days he never saw Dr. Brewer. He knew hundreds of people. But these two men were still his only friends in the city.

Slowly he reached for the bottle, filled his glass and took a deep drink. Then, for the first time since they had known him, he talked freely and without restraint to his friends. These two men he knew would understand, as Laura did.

He told them he was acutely aware of the fact that he had failed to make a fortune while others had reaped a rich and easy harvest. His job, he explained, had been to operate the Seneca Oil property, not to go out and make money at the expense of those who were paying him a salary. Wilson and Fletcher understood; they too were honest men, loyal to trusts.

Then, haltingly, Drake told them he was leaving town. He could sell his home, he explained, and realize about \$10,000 on his equity. There were men in New York who wanted him to join them in an oil brokerage business. There would be a handsome profit for him, he had been assured. Wilson and Fletcher both sensed that the New York men wanted, not Drake's ability

EXIT, EDWIN L. DRAKE

as a businessman, but the prestige of his name. Yet, they were silent. To have so expressed themselves might have hurt their friend, they reasoned. Ruel Fletcher and Peter Wilson were gentlemen, in all the literal sense of the term.

They were loath to hurt a friend, a man who had striven, worked with honesty and sincerity, who had stubbornly pursued a dream, made it come true, but, who had been ill-treated by fortune.

They remained silent until Drake had unburdened himself. Then the three of them talked, far into the night. When they broke up, the level of the bottle was very low. So were their spirits, but they kept a brave front.

Wilson and Fletcher walked down the street together.

"I'm afraid we won't see Drake again," Wilson said softly. "By God, Ruel, he's a fine man. I hate to have him go to New York. It's like throwing a lamb to the lions!"

"I know, Peter. I agree," Fletcher admitted as they came to the corner where their ways parted.

Drake did return to Titusville in July of 1866. John Mather, pioneer oil field photographer, heard about it, hired a carriage and brought Drake and Peter Wilson to the site of the original oil well, where he photographed them. The print is still in existence; most people believe that the derrick in the background is the original derrick over the world's first oil well. It is

THE VALLEY OF OIL

really the second derrick, the first having burned down soon after the well was drilled.

Drake was again discouraged. The panic had forced his company to the wall. His financial resources were low. His health was more wretched than ever. When he left, three days later, Peter Wilson and Ruel Fletcher knew that they would never again see him alive. There had been tragedy in Drake's eyes when he clasped their hands as he left them, and unspoken words on his lips.

His two friends knew it was a final farewell.

Drake - A Profile

*T*he life and the deeds of Edwin L. Drake are obscured by strange and fantastic circumstances, seldom of his making. To say that he was a man of vision would not be quite true. To say that he had courage, a stubborn determination and unquestioned honesty, is closer to the truth.

From the time when he first came to Titusville, there has been a curious, unrestrained conspiracy to endow him with a military title he never earned and which, personally, he never wanted. The "Colonel" appellation survives, however. It was, according to reliable evidence, an idea of that shrewd banker, James M. Townsend of New Haven, Conn. "We will send your mail addressed to 'Colonel' Edwin L. Drake," Townsend told him. "That will give you a certain prestige with the backwoodsmen." I suspect that the banker-pro-

THE VALLEY OF OIL

moter also had in mind the possibility that the specious title might also give the weakly-financed oil company some measure of credit.

Under the circumstances, Drake could not deny the title.

When a \$100,000 monument, massive, beautiful and gracious, was erected to the memory of Drake in Woodlawn Cemetery at Titusville, the fictitious title still prevailed and was carved thereon. Most oil field historians have fallen victim to the legend of the "Colonel."

The facts of the life of Edwin L. Drake are mostly uninspiring, drab, and colorless. He was born on a farm near Greenville, Green County, New York, on March 29, 1819. His education was sketchy and that fact is clearly evident in the few surviving pages of letters and statements he penned.

He was, by turns, an Erie Canal boat captain, a hotel clerk, a superintendent of a textile mill, and an express messenger. Just before he came to the oil fields he had served as a conductor on a passenger train of the New York & New Haven Railroad, leaving this employment because of ill health.

He once wrote that he had been swindled by Townsend in the purchase of oil stock. In later years he was not sure of the amount of money involved. It was either \$100 or \$200, he wasn't sure which.

The man was ruggedly and fiercely honest. Brewer, who distrusted the motives and the honesty of the men

DRAKE—A PROFILE

behind the project to increase the flow of oil from the spring, advanced Drake credit when he would not have given the sponsors of the project a penny's worth of it. Fletcher and Wilson, careful, sedate and close-fisted businessmen, readily signed a note that gave Drake the funds he needed to complete the first well. And they did this solely because of their friendship for the silent and determined man and because they believed implicitly in his honesty.

A weaker man, during trying times, would have become discouraged and admitted defeat. Drake met every obstacle and deliberately whipped it, stubbornly refusing to permit any set of adverse circumstances to deter him.

He was proud and sensitive. His vision was extremely limited. "I have tapped *the* vein!" he snorted, when he was urged to join in the mad and hectic rush to lease territory after the first well was drilled. He believed with all sincerity that there was only one reservoir of crude oil beneath the surface of the earth in that locality. He had drilled down to that pool which would presently be exhausted. It was primitive reasoning but unsound.

The initial tempo of expansion caught him flat-footed, inert, and unprepared. He was unwell, suffering from recurring backaches that left him weak from pain and discomfort. In less than a year from the time he drilled the first well, the stockholders had removed him from a position of authority.

THE VALLEY OF OIL

He made some money in the venture, but not much. He started to buy a residence in Titusville, but was unable to finance it until a wealthy and generous oil producer gave him financial help. In those days, Drake was slightly stunned by what he had accomplished, finding it extremely difficult to appraise its importance.

A minister cornered him on the street one day and lectured him severely. According to the minister, Drake had foiled one of the best long-range plans of the Deity. "The oil you are taking from the earth is the fuel God had stored for the eternal fires of Hell," the cleric charged shrilly. "You will have to answer, sir, for your interference with Divine Plans."

Drake used to tell the story with a dry humor. "If that preacher is right, a good many million wicked souls ought to be pretty grateful to me."

He left Titusville and became an oil broker in New York City. For a time, prosperity came to him. But, the business required bookkeeping, close attention to details, keen alertness, and a sense of timing the tall, tired, pain-racked man did not possess. His partners eased him out of the picture without gentleness. Drake left without argument just as the firm failed. He was hurt and a little ashamed. He kept his financial and physical ills from his small group of friends back in the Pennsylvania oil fields. He knew fortunes were being made from his discovery and the thought that he was not sharing in this prosperity which he had helped to

DRAKE—A PROFILE

create, made him gloomy, morose, and more reticent than ever.

In October of 1869 Zeb Martin, a Titusville hotel man, encountered Drake in New York. He was deeply shocked at the man's appearance. Drake was a very sick man; the spinal ailment had twisted his body and he walked slowly, bent over a heavy cane, his face lined with pain and sorrow. He was shabby.

As the two men talked, Martin became aware of the extent of the poverty which Drake had reached. He had been living in a tiny cottage at Navesink, New Jersey, owned by a friend who permitted the Drakes to live there without rental. Drake had brought his twelve-year-old son into New York, hoping to find employment for him, so desperate was the family's financial condition.

Martin, a generous, kindly soul, was deeply touched. He took Drake and the boy into his hotel, ordered a big dinner. Before he left Drake he insisted upon giving him a sum of money and told him there would be more forthcoming. Drake was pathetically grateful.

Martin returned, indignant, to the oil fields. He determined to raise money for Drake. Approaching some oil producers he found many of them entirely indifferent to Drake's plight. They were busy making money. After all, they reminded Martin, Drake didn't take advantage of the opportunities right at hand. Why should they pay for the man's laziness, his indifference? Not all oil men felt the same way, however, and

THE VALLEY OF OIL

Martin's campaign succeeded in raising about \$4,800, which was duly sent to Drake.

After that, the oil industry returned to its drilling and promptly forgot the man who started the industry.

In the meantime, Edwin L. Drake and his family barely managed to exist for three weary, unhappy years. Drake's health failed completely; he was mostly confined to an invalid chair and the spinal pain gnawed steadily at his meager reserve of strength. The family lived shabbily and miserably.

In 1873, public opinion was again aroused at Drake's position. The oil industry was again too busy to take care of its own, too indifferent, too intent on its own urgent problems to do other than give mere lip service to a movement to have the State grant him a small pension. The Legislature, however, did do something. It passed a bill to give Edwin L. Drake an annual pension of \$1,500, said annuity to revert to Mrs. Drake following his death, and to continue for her lifetime. It was not what might be called a generous reward or an open-handed act for a State that had benefited so materially from Drake's discovery. It was rather a pitifully inadequate sum, a beggarly pittance . . .

Yet, the sum represented some measure of social security for a man who had never enjoyed such a privilege before. For the first time in many lean years, Mrs. Drake could put aside the endless needlework she had been doing to help support her sick husband. There was money for rent, for the grocer and the butcher.

DRAKE—A PROFILE

Drake had never complained. He suffered mentally and physically, yet he maintained his sanity, his balance, his inherent gentleness. He never looked upon himself as a victim of circumstances. The family moved to a plain, ugly, but comfortable house in Bethlehem, Pennsylvania.

On a bright Indian Summer day, when the hills around Bethlehem were softly etched against a faint blue haze and the woods were bathed in soft color, Edwin L. Drake died. The date was November 4, 1880.



THE VALLEY OF OIL

He was buried in Bethlehem. The services were simple and the small group of mourners did not contain a single oil man.

Edwin C. Bell, oil field historian without portfolio used to grin bitterly when he spoke of the Drake monument which now graces the entrance of Woodlawn Cemetery at Titusville.

"It was all a beautiful mystery," he told me once in the cluttered, incoherent premises of his private oil museum on the West Central Avenue Extension. "By God, it was wonderful!

"They started digging up the driveway in Woodlawn and some of the biggest damned packing boxes you ever saw came in from New York. No one knew what was in the wind. Then one day the information leaked out. Seems some oil mogul had reached down in his jeans and brought out a man-sized roll of bills and told someone he wanted the biggest, most impressive monument money could buy, erected to the memory of that man 'Colonel' Drake.

"Whoever the man was, he didn't want his name known until after he was dead. Cal Payne was the local man charged with the job of seeing the monument was erected and properly dedicated.

"I used to go up there and perch on a tombstone and watch the men working. It was beautiful! The stone masons were being paid more than the State paid Drake in the way of a pension! When the monument was un-

DRAKE—A PROFILE

veiled it sure filled every specification set up by the donor. If he was present that day in 1901, he must have been in the background.

"It was a beautiful monument, to be sure. Cost as much as \$100,000, the paper claimed. Impressive too, and some of the speeches made that day of the dedication, were high and mighty. They talked as if Edwin L. Drake was a sort of cross between Jesus, Abe Lincoln, Andy Carnegie, and Christopher Columbus. The bogus military title—indelibly carved on imperishable marble, making it official for all time. I couldn't help but think what even a small slice of that \$100,000 would have done to make Drake more comfortable in his last years of pain and poverty."

Bell was a dry, critical man who had been a sort of shuttlecock journalist of the oil industry. His opinions may have been a trifle warped and on the bias. But he was ever a frank individual and one who could appraise with some degree of accuracy, men and their motives.

The Drake memorial monument is dignified and impressive. It consists of a classic fane with four columns, two detached and two engaged, supporting a roof and forming a niche for the semi-circular pedestal upon which the statue proper rests majestically. To the right and left are marble benches with high backs, broken by perforated stone screens, terminating in tall, narrow wings on which are figures in high relief.

Charles T. Niehaus, celebrated sculptor, made the bronze figure of "The Driller." The lateral reliefs are

THE VALLEY OF OIL

cut from stone, framing the central statue of bronze—huge, symbolical, imbued with tremendous energy.

The inscription added after the death of the donor is sonorous, stuffy, verbose:

Col. E. L. Drake, born at Greenville, N. Y., March 29, MDCCCXIX, died at Bethlehem, Pa., November 8, MDCCCLXXX, founder of the petroleum industry, the friend of man.

Called by circumstances to the solution of a great problem, he triumphantly vindicated American skill and near this spot laid the foundation of an industry

That has enriched the state, benefited mankind, stimulated the mechanical arts, enlarged the pharmacopoeia and has attained world-wide proportions.

He sought for himself not wealth or social distinction, content to let others follow where he led. At the threshold of his fame he retired to end his days in quieter pursuits.

His highest ambition was the successful accomplishment of his task, his noble victory the conquest of the rock bequeathing to posterity the fruits of his labor and his industry.

His last days oppressed by ills—to want, no stranger—he died in comparative obscurity. This monument is erected by Henry H. Rogers in grateful recognition and remembrance.

Edwin C. Bell quoted the inscription to me, did it in his crackling, whimsical voice. He was old, shabby, cynical, unhappily poor and tormented by a private dream of establishing a museum of oil field historical documents, a dream he knew he would never live to see come true.

DRAKE—A PROFILE

"I swear to God," he said solemnly, "I swear to God, I never read that inscription without gagging!"

On September 4, 1904, Edwin L. Drake came back to Titusville. His body was encased in a handsome bronze casket. The casket was placed in the vault that forms part of the monument, without formal ceremonies. A number of prominent citizens gathered, but there were no speeches, no flowers.

Fifteen years later, the body of Laura C. Drake, the faithful wife of Edwin, was brought to Titusville to rest beside the body of her husband.

Members of the City Council acted as pallbearers. There wasn't an oil man among them.

Pithole-Phantom City



CHAPTER XI

Mr. Frazer Comes to Pithole

Time was when the clergy were a rugged group, given to pioneering, willing to accept the hardships attached to laboring for the salvation of reluctant souls. Some of the clergy had a passion for sheer martyrdom, a high courage and the fortitude for bearing torture at the hands of the Indians. Some were possessed of dreams of empire and explored wildernesses where they faced many dangers gallantly.

A few have written bright pages of history; some have left an imprint, even to this day, on our civilization and our way of life. Mostly, however, they performed what they were pleased to call their duty—doing it obscurely, patiently and with complete sincerity. Pastor and priest, they lived according to their own beliefs and in peaceful accord with their own consciences.

THE VALLEY OF OIL

The Reverend Walter Holmden, Baptist preacher, was one who lived and died in obscurity. While he did not hold with the harsh and inexorable tenets of the Methodist faith, he nevertheless read with interest a monumentally dull book, *Western Pioneer*, written by the Reverend Alfred Brunson, a Methodist missionary, and published in 1819.

The book made a great and lasting impression on Reverend Holmden. He was a holy man, yet deep in his makeup was a trace of the pioneer. He relished adventure. In *Western Pioneer* he discovered a patently dull description of certain lands in northwestern Pennsylvania and a curious stream, known as Pithole Creek. Near the mouth of this creek were a series of pits, or crevices, caused by some earthquake many centuries before. From these pits at times, issued a humid, strong smelling air. Men who carelessly sat on the edge of the pits and breathed of their strange fragrance, presently nodded, became unconscious and wakened later with memorable headaches. A few of the more imaginative pioneers, who experienced this primitive gassing, were most positive that during their period of unconsciousness the Devil had appeared and boasted that, as they had invaded his own private domain, he had seen fit to punish them for their intrusion.

Today, the pits are virtually gone; the air that comes from them is fresh and sweet and wholly pure. One suspects that the pioneers did not see the Devil while unconscious. What they had sniffed was probably

MR. FRAZER COMES TO PITHOLE

natural gas, an effusion that is a collateral blood-brother to the fluid crude oil. A few sniffs of natural gas will still put one to sleep.

The description fascinated the Reverend Holmden. It is not unlikely, according to certain legends which abound in that section of Pennsylvania, that his decision to come to the Pithole Creek sector and start a pioneer farm was due, in part, to the hope that it might eventually lead to a hand-to-soul encounter with the Devil, an affair in which the Reverend Holmden planned to come off a victor, to the eternal glory of a sinful world.

He arrived, bought two hundred acres of land, laboriously cleared a few acres where he managed to raise some meager crops. In between times he roamed the lonesome hills and valleys, seeking souls to save. He failed to achieve any marked success at either farming or preaching. His crops of potatoes and souls were not bountiful. In 1840 he died, a poor man. His family, in the manner of farm families, continued to live drably in the old farmhouse. Eventually, the farm came into the ownership of a son, Thomas H. Holmden, who proved to be a better farmer than his father. The son sought to save no souls, but he was known as a good neighbor to the Copelands, Blackmers, and Rookers who lived on adjoining farms.

A silent, somewhat morose man, Tom Holmden was seldom known to smile. His neighbors often referred to him as being a "good provider," one of the highest

THE VALLEY OF OIL

of all rural compliments. Compliments in most rural areas, even to this day, are grudgingly and reluctantly given. In the mid-1800's, in a community where abundance was an undeniable luxury, where crops were normally lean and scanty, to call a man a "good provider" was to endow him with a species of nobility beyond our modern understanding.

The Pithole neighborhood was a remote one. It was six miles from the nearest village of Pleasantville, at least nine miles from Titusville. It was ten miles to Miller Farm, the nearest railroad.

Perhaps once a month one of the neighbors gathered up the surplus of eggs and butter, if any existed, and hauled them in a lumber wagon to Pleasantville. The neighbor carried with him a list of necessities from each of his neighbors and was entrusted to barter the produce for coffee, matches, tea, calico or shoes. In some respects, the community was virtually a communistic chapter. There was seldom any excitement, any neighborhood disputes or scandal. When a neighbor brought back from town, a newspaper that told of the discovery of oil through drilling a hole deep in the ground, all of the community agreed that it would mean nothing to them.

From time to time more news came of the excitement and the employment engendered by the drilling of wells up and down the Oil Creek Valley. Once, during 1862, when a killing frost had ruined the potato, corn, and

MR. FRAZER COMES TO PITHOLE

root crop, three of the Copeland boys and one of the youngsters of the Rooker family, went to Franklin and obtained work in the oil fields. They worked for three months. The Copeland boys came home with their pockets bulging with greenbacks and improbable tales of the wages they had been paid and the wealth that was being created by the drilling of oil wells.

The Rooker boy came back with empty pockets, a haunted look in his young eyes, and an expression of pain that lined his face deeply. James Rooker took the youngster to the barn, and though the boy was past his majority, the father reached for the buggywhip and told the boy that unless he told the truth, he would horsewhip him within an inch of his life.

The youth blubbered his story. It wasn't nice. There was a girl. Not a nice girl. Not a healthy girl. She had introduced him to brandy and sex. The one had made him drunk; the other had wrecked his health. Between them, they had accounted for the spending of his hard-earned dollars.

Old James Rooker was a practical man. And a good father. He hitched his team up to the lumber wagon, took the youngster with him to Pleasantville. He hitched the team in front of the little brown-painted office of Dr. Shugert. "Doc, this here boy is sick!" he said without any preliminaries. "He's been with the wrong kind of a female. I want you should cure him. God only knows when we will be able to pay you."

Dr. Shugert chuckled in his beard. "Sure, I'll fix you

THE VALLEY OF OIL

up, son," he said gently. "It will hurt a mite, and you must promise me you'll never get in trouble again, that's all. If you never pay me, I'll get along. But next time you come to town, I'd be most grateful if you'd fetch along a bushel of swamp root and a paper sack of sassafras root bark—and I'll call it square."

Shamed and contrite, the boy huddled on the seat with James Rooker on the way back home. Rooker was silent. As they neared the farm, the old man dug an elbow into the boy's side, and smiled a crooked smile.

"Don't worry, son," he said quietly. "Your mom and your sisters will never know about this. This is between us. You've had your lesson. From now on, we will never mention this."

Pithole, in common with the entire area of northwestern Pennsylvania, lived in a state of awareness. From every quarter came tales of the fantastic wealth that came to those who had an association with the new oil industry. The tales filtered in and were told and retold. In the telling they were often distorted, but only infrequently were they exaggerated. Unbelievable as some of the tales were, they usually had a sound basis of actuality. To farmers living in the Pithole community they seemed incredible. Most of them didn't see \$5 in currency from one year to another. They lived in a world of barter, of primitive socialism, where they raised crops and chickens and pigs, which they either ate or took to town and traded for necessities.

MR. FRAZER COMES TO PITHOLE

That some farm owners were receiving hundreds or thousands of dollars daily as the royalty on oil produced on their lands, seemed like a fairy tale of the first magnitude. That they might enjoy as great or even a greater bounty from their scrubby acres, seemed as impossible as the tale of the ownership of the fabled goose that laid the golden eggs.

A tall, laughing man with blue eyes and a disarming manner, appeared one day at the Holmden farm, reined in a mud-splashed and weary horse, and brought their wildest dreams closer to reality.

It was October of 1864, and Mrs. Holmden was making applebutter in the backyard, where a big copper kettle was hung over a slow fire of hickory logs. The tall man sniffed the spicy aroma of the bubbling kettle appreciatively. Tom Holmden looked up, waved his hand briefly, and called for his wife. She appeared, wiping her hands on her apron. He silently passed her the wooden stirring paddle, walked slowly around the house to where the tall man was fumbling in his saddlebags for a bundle of papers and talking soothingly and cheerfully to his horse.

He held out a hand to Holmden. "Name's I. N. Frazer," he announced in a booming voice. "I'm in the oil business and you may have heard of me. I own the United States Oil Company and we have some pretty good producers at Tarr Farm. Right now, I'm looking for some new acreage to lease. How'd you like to lease some of your land? You risk nothing; if we drill and

THE VALLEY OF OIL

strike oil, you get a royalty, one-eighth of the value of all the oil we find and sell. Might hit some good producing wells—again we might strike a duster. No money out of your pocket if we do. Fact is, Mister Holmden, you'll make some money if we drill. We'll have to have



some derrick timbers and a lot of boiler wood. We pay cash for such things. Interested?"

Of course Tom Holmden was interested. He nodded and turned toward the front door of the farmhouse. Frazer followed, whistling softly. A half-hour later he shook hands with Holmden, mounted his horse and was off at a gallop.

MR. FRAZER COMES TO PITHOLE

He stopped at the Copeland and Rooker farms. Rooker was in no way interested in leasing his semi-barren acres. Copeland reported that he had just leased his land to Kilgore & Keenan, two enterprising oil operators, only a few hours before.

As Frazer trotted his horse down the road that led to Plumer, he noted that the air was chilly and crisp. The road led through woods that were clothed in the wanton reds, golds and deep scarlets of October and the beauty of it suddenly caught his fancy and he hummed a little gay tune as the sorrel horse glided smoothly into an easy gallop.

"It's a good world!" said I. N. Frazer, "a damned good world, a place where a man can make money and have fun doing it at the same time."

For the first time in his life, Tom Holmden had money in his pocket. It was astonishing and unbelievable. He even permitted himself a small but momentary smile as he milked the cows in the early January dawn. He sat on a stool in the cowshed and by the pale light of the lantern he counted the money again. It was more in the way of cash than he had hoped to earn, let alone save, in a lifetime. There had been timbers to cut and fashion for the United States Oil Company. Then he had hauled the timbers to the site of the oil well, three hundred yards from the farmhouse. He had personally cut and hauled to the well-site over fifty cords of boilerwood. That had brought in more money. Four men were rooming and boarding with the Holmdens. They

THE VALLEY OF OIL

paid four dollars a week, each. A terrible price, but it was the asking price and the men had accepted it without question or quibble. The money, he reflected, was literally rolling in.

The big pail was brimming with milk and the lantern cast queer, dancing shadows on the snow as he slowly walked back toward the house and the welcome warmth of the kitchen.

Mrs. Holmden, a large, comfortable woman, was bustling about the kitchen, hovering over the cast-iron stove from which erupted a medley of tempting odors.

"Hurry and wash, Tom," she said breathlessly. "Breakfast is about ready to put on. I declare, I'm so tired! It's a real chore having to cook for four extry men, especially when they work such outlandish hours."

Tom Holmden nodded. It was a complaint he had heard before and he took it lightly. From long experience he had discovered that silence enabled the wife of his bosom to let off steam. Her complaint was not, he recognized, without foundation. The men engaged in drilling the well worked from twelve noon until midnight and from midnight until noon, two of them at a shift. Meals at noon were a country custom, but feeding four hungry men at midnight was something else again, especially when two of them were eating breakfast before they started to work and the other two wanted a heavy, substantial meal at the end of twelve hours' hard work. There were lunches to pack, too.

MR. FRAZER COMES TO PITHOLE

Holmden peeled a round half-dozen brown, buckwheat cakes onto his plate, buttered them generously, sliced a heavy cut of fried country ham into bite sized chunks. He chewed solemnly and appreciatively.

"You know, Marthy, seems to me you make the best buckwheat cakes a man ever ate," he ventured diplomatically.

She passed him a plate of freshly fried potatoes and smiled, momentarily forgetting her troubles and weariness. "Tom, would you like some clover honey?" she asked. "I have three combs I've been saving and sort of hiding from these drillers and tool dressers. Would you like some?"

He would, and she went to get it, on slow and weary feet.

It was daylight now. She stood by the window, looking down at the lights of the drilling rig. Blue smoke and golden sparks lifted from the boiler stack as McCombs, the tool-dresser, tossed lengths of chestnut wood into the firebox. The derrick, a gaunt silhouette against the sky, was lighted with flickering derrick lamps that were pale yellow blobs of light against the white of the January fall of snow. The walking beam nodded endlessly and the engine spurted hasty puffs of steam in an incessant flow of urgency. Her gaze turned toward the Rooker Farm where two more derricks showed similar signs of activity.

She shook her head. "I declare, Tom, I used to complain about how lonesome this place was—and now it

THE VALLEY OF OIL

just seems as if there are too many people around. Such goings and comings I never did see!"

Holmden tilted the pint cup of coffee, drained it at a gulp, wiped his lips on the back of a hand and fumbled in his jeans for his pipe.

"You see anything of any of them scouts?" he asked anxiously.

She peered closely through the window, to the row of pine trees fringing the road to Pleasantville. Her eyes bulged a little as she reported, "There are four saddle horses tied to the fence! I see the men, too. They are watching the drilling well through telescopes. Tom, what are they up to? Will they cause trouble for us or for Mr. Frazer?"

"No," he replied. "You see, Marthy, they are oil scouts. Some other oil men besides Mr. Frazer are mighty interested in what's going on here. If they happen to see the crew bailing out any oil, they will know a good producer has been struck. They'll ride, hellity larrup to Pleasantville where the telegraph is and send the news to the people they work for and those people will send men with money out here to lease up a lot of land. That's how it works, Marthy."

She faced him indignantly. "Tom Holmden, your blessed father would turn over in his grave if he heard you cursing! For shame! Besides, I don't believe this story about the telegraph. It stands to reason that people can't send a message over a piece of wire, for miles and miles. It's a trick, that's what it is."

MR. FRAZER COMES TO PITHOLE

Holmden struggled into a heavy coat, picked up his mittens from behind the stove. "I'm hauling in a few cords of boiler wood for the well," he stated briefly as he escaped from the house.

Women were downright funny, he reflected as he harnessed the ancient team of horses. Never satisfied. First off, a woman's lonesome, then she has plenty of company and she complains about that too. As for that *hellity larrup* expression, he had heard the men around the well use stronger words than that. Take that Nate Peabody, for instance. The day a sledge hammer handle splintered in his hands when he was dressing a bit, he really did cuss. Must of lasted ten minutes, that flow of language, and as far as he could remember the man never repeated himself once.

"Wonder what that woman would do if she had a hundred, mebbe two hundred people around here," he queried Mabel, the off-horse, a bay of age and understanding. Mabel had no comment to make, a pleasing trait in the eyes of Tom Holmden.

Tom Holmden might have been more than a trifle surprised had he suspected that it wouldn't be long before Marthy would be able to see thousands of strangers around her formerly quiet home.

A Well Is Drilled at Pithole

The fringe of tall, leafless, hickory trees surrounding the drilling rig, failed to keep the wind that swept down the valley from making the crew acutely uncomfortable. They had been working since midnight. It was near dawn and the derrick lamps flickered unsteadily, causing eccentric shadows to dance on the rough walls of the derrick.

It was the morning of January 7, 1864. Nathan Peabody, the driller, perched on the drilling stool, relaxed and cold. One hand was on the temperscrew as it plunged up and down, the cable slapping a curious rhythm against the mouth of the casing. He was a thin man and young, but one of the best drillers of the day. Bruce McCombs was the tool dresser, an ancient, fat, sturdy individual who perpetually sucked at a blackened corn cob pipe. He was bald as an egg and his face

A WELL IS DRILLED AT PITHOLE

was reddened with the cold. He poked viciously at the glowing fire in the derrick forge and walked wearily across the vibrating floor where he lounged against the headache post, close to the driller. Smoke sprayed from his wide nostrils and he swore softly, but with evident sincerity.

"This is the coldest damn job I've ever been on," he grumbled without removing the pipe from his mouth. Peabody grinned sympathetically and in complete agreement.

Out in the engine house the little steam engine coughed sturdily and industriously. The wind caught the white shadows of the steam, swept them into the darkness where they were quickly evaporated. Overhead, the wooden walking beam sang its endless song as it methodically and monotonously bowed and raised, lowering and raising the steel drilling tools, five-hundred and seventy-four feet below the surface of the snow covered ground. Peabody casually and automatically fanned out a little more screw as the slap of the cable dropped in tone. His eyes flickered into the deep darkness of just-before-dawn. A single light gleamed in the Holmden house a few hundred yards up the slope.

McCombs was tearing into a thick ham sandwich with gusto. "God, that's good meat!" he said between bites. "That Marthy Holmden is sure a good cook. Powerful sick of sowbelly I was before this job! Afore Frazer hired me, I was boardin' with the Moorheads,

THE VALLEY OF OIL

up Benninghoff Run way. Old Jake Moorhead told us that when we et up the sowbelly, we'd start on the hams and shoulders. I was there ten months and we was still eatin' sowbelly when I left. Reckon them Moorhead hogs must've been seventeen axehandles betwixt shoulders and hams!"

Peabody reached over to the engine telegraph and turned on a little more steam. He chuckled, wiped away a little ice forming on his moustache. He worried off a big chew from a plug of "Spearhead" tobacco, masticated it with evident enjoyment.

"Mac," he said tolerantly, "oil country food is always pretty terrible. Once, over at Pleasantville when I was working there, I boarded with a family named Folwell. Man, that Folwell woman knowed how to make the most durable piecrust a feller ever ruined a tooth on! Know what? I took a piece of her dried-apple pie, small end up and druv a ten-penny nail through it into the headache post. Damned if that piece of pie weren't there when the well was drilled in!"

McCombs regarded this statement moodily and skeptically. The headache post is a heavy, vertical timber that vibrates incessantly when the drilling machinery is in motion. That the piecrust had been able to survive was a genuine tribute to its inherent toughness, or, he reflected, to the ability of Nate Peabody to twist the truth, a trait he had long suspected the young man of possessing.

"I remember once a place in Franklin," he started to

A WELL IS DRILLED AT PITHOLE

say in rebuttal, "where the gravy was so tough you couldn't cut it with a broadaxe—"

Peabody grinned bleakly. "Man tellin' the first lie ain't got no chance, seems like. Time to pull out, Mac."

For a man of his age and weight, Mac moved swiftly across the derrick floor. He picked up the bull rope, kicked the big bull wheels around until the drive rope from the bandwheel was engaged. Then he swung across the derrick floor and helped Nate disengage the temperscrew, enabling the bull wheels to start pulling the heavy stem and drilling bit from the hole. He trotted out the catwalk, picked up a heavy wooden maul, drove out the wedge holding the pitman to the bandwheel crank, and lowered the disengaged walking beam pitman to the catwalk.

The small engine was furiously puffing as he scurried out the catwalk to the boiler. A glance at the steam gauge informed him that the steam was low. He opened the boiler door, tossed in a dozen three-foot lengths of dry pine and trotted back into the derrick.

He was just in time. The gray, muddy length of the stem was sliding into view. McCombs snatched the waiting pail of water and poured it down the length of the stem. Then he turned to the bull wheel brake lever and the bull rope trip. He watched and when Nate nodded, Mac dropped the brake and pulled the trip lever at the same time. The rising stem stopped and hung suspended above the derrick floor. McCombs brought over the bit gauge and handed it to Nate who

THE VALLEY OF OIL

applied the gauge critically to see if the bit was worn enough to warrant a change to a fresh one. As they worked, the two men talked soberly above the whistle and urgency of the sharp wind sweeping through the cracks of the roughly boarded derrick.

"Mac, I got an idea we will hit that stray sand pretty soon," Peabody predicted, as he rubbed his red, cold hands over the heat of the forge fire.

"Mebbe, but I doubt it," grumbled McCombs. "My opinion is that these here oil sands run just like roads and railroad tracks. They don't just bust off and then on again, after a few miles. 'Tain't reasonable to think there is things like a stray oil sand. Me, I've worked at tool dressin' for five years now and I never worked on a well yet where we hit a stray sand. Strikes me this here Frazer is plumb crazy. What d'you think?"

Peabody straightened up and sniffled. He was catching cold and he wasn't happy about it. "Known this I. N. Frazer for some time," he said slowly. "Never knew him to make a mistake yet. He's made money by bein' right. I kind of feel he's right and we may hit the stray any screw now. . . . Well, Mac, let's dress the bit if she's ready."

The fat man groaned, slid a rope ring down the length of the bit in the glowing forge, grunted mightily, and swung the 150-pound piece of steel around and on the anvil. The men picked up heavy sledges, stood on opposite sides and swung in perfect rhythm against the red-hot end of the bit, hammering the drilling end

A WELL IS DRILLED AT PITHOLE

into shape to penetrate the solid rock far beneath the surface. They finished, reeking with sweat, their breath coming in gusts from the exertion required. Peabody picked up the bit gauge. The bit needed some finishing touches and he did them with a lighter sledge, fashioning the metal until it snugly fitted the gauge. Then McCombs grunted again and switched ends with the bit, placing it again in the forge for the tempering heat. He pumped the bellows vigorously and in ten minutes the bit had reached the required heat. He adjusted a wooden cradle on the screw end of the bit, carried it over and placed the red-hot end into the tempering trough filled with water. It hissed angrily and a cloud of steam momentarily obscured the derrick floor. The color of the hot steel changed; when it reached a certain shade of blue-black, Peabody nodded, and the perfectly tempered bit was ready.

The old bit was jacked off the stem with the forgie track and lever, the two men leaning against it in unison. Then the stem was raised and the old bit unscrewed and taken to the forge. The newly dressed bit was started on the stem. The stem was lowered slightly into the hole until the heavy iron wrenches with their five-foot handles could be placed. Then the forgie track was tightened against the bit. Again the men leaned against the forgie lever, tightened the joint against the possibility of release when the stem and bit would hammer against the rock formation at the bottom of the hole.

They were both tired when the routine job was

THE VALLEY OF OIL

finished. The lights in the Holmden house were gone and the wind had dropped. A thin thread of blue smoke lazily mounted into the sky from the chimney of the house. The cold was penetrating. The men ran the bailer and, when it emerged from the hole, dripping with water and disgorged its muddy contents, Peabody reached out a hand, took some of the contents in his palm, and poked it with an exploratory finger. He sniffed, even tasted the scum. His mouth twisted, his eyes were speculative and thoughtful.

"Mac!" he exclaimed. "Try this—what's she smell like?"

McCombs was slow in replying. "Trace of oil, Nate! That's what she is!"

The men were alert, anxious, as they started to run the tools down the hole. Peabody operated the bull wheel brake. He released the brake and the giant wheels roared as the heavy weight dived downward. He used the brake judiciously as the wheels roared and whined, reeling off yards of the two-inch drilling cable. The brake slammed down as Peabody watched for the measuring string on the cable. The temper-screw was tightened and the walking beam resumed its endless dance.

Peabody took a fresh chew of tobacco before he started to fan out screw. "Mac, we'd better put out that forge fire," he counseled. "Can't tell, we may be close to something big. Might hit us a big pocket of gas. Let's play safe."

A WELL IS DRILLED AT PITHOLE

Mac doused the fire; again steam rose and the fire sizzled out. He reached down and put out the derrick lamps. He was tired. It was daylight now. Tom Holmden was driving his team and wagon down the wood road to bring up more boiler wood. Mac looked toward the house. A cup of hot coffee and a stack of buckwheat cakes would taste mighty fine he thought gloomily and wistfully as he walked slowly toward the boiler to replenish the fire.

Martha Holmden was baking bread. She had just mixed down the mass of snowy white dough, covered it up and placed it close to the stove when she happened to look down the hill toward the derrick. Something caught her attention. Across the snow around the derrick, was spreading a black stain, a stain that steadily grew and expanded. She heard McCombs yell, saw him run from the derrick and start to throw water into the boiler fire. Nate Peabody had the throttle wide open and the drilling tools were coming into view. Her astounded eyes saw a steady, thick flow of black liquid rising and falling from the casing head.

"Tom! Tom!" she screamed, forgetting that he was down in the wood lot. "Tom, they've struck oil!"

Down at the drilling rig, the two men worked feverishly trying to screw a cap on the casing to shut off the flow. At long last the cap was on, but not until the two men were drenched and soaked with oil.

Silently they shook hands. They had struck a

THE VALLEY OF OIL

gusher, an honor not accorded to many drillers and tools dressers of the day. I. N. Frazer would be pleased.

Martha heard sudden shouts and the thunder of galloping horses. She ran to the other kitchen window. Four horsemen, leaning forward on their horses' necks, lashing and spurring their mounts, were plunging down the run toward Pleasantville and the mysterious telegraph. Suddenly she felt frightened and very lonely. One of the horses slipped on the snow in front of the house and threw its rider. He scrambled to his feet, cursing loudly. As he caught his horse, remounted, and spurred furiously away behind his competitors, she was too excited to feel offended at the cursing. She even forgot to scold Tom Holmden when he rushed breathlessly into the kitchen and yelled, "Marthy, by God, they've struck oil and the well's the biggest damn gusher ever!"

It was all too much for her. Too many emotions crowded into too few minutes. For the first time in her life, she fainted. In falling, she struck the rising dough of the baking, throwing it to the floor.

In later years, she used to speak regretfully of that happening as though it had been a major catastrophe.

CHAPTER XIII

Front Page News

Pithole City became front page news in less than ninety days from the day that the Holmden Well became a gusher. In the fast pace and urgency of events Peabody and McCombs became forgotten men. Frazer's star shone bright and clean to the end, and he became almost legendary. He went through life making money, laughing, being fair, honest and venturesome, a good man to know and call friend.

To Pithole City came all manner of men and women. The War Between the States was over; the country was flooded with paper currency and with men who had lived with adventure, who had survived countless encounters with chance and death. To them Pithole City offered opportunity, a possible chance to make a

THE VALLEY OF OIL

fortune, a chance to enjoy new and exciting thrills. They came by the thousands, inflamed and hopeful, full of robust vigor.

To each of them, according to his own private dreams, the wooden city perched on the hillside and



sprawling untidily across the flats, offered something.

Hobey Sutton was such a man. He was an ex-slave, a small, wiry body with a peg leg and a keen sense of music. Pithole City was to him heaven with appropriate trimmings. He worked for Ben Hagan. Hagan was a curious, almost a fantastic character. He ran two dives in the city that catered to every possible carnal appetite

FRONT PAGE NEWS

man is subject to—and he prided himself on his own personal sinfulness. Over the door of his largest bar was a sign: “BEN HAGAN—THE WICKEDEST MAN IN THE WORLD.” Those who knew him have testified that the sign contained, in their estimation, no understatement.

He had been a gambler, a thief, a pugilist of sorts. He boasted that he had killed at least four men, always, he was careful to state, in self-defense. He was not immoral, rather he was simply un-moral.

Hagan was a giant of a man with a bristling red moustache and a booming voice. Usually there was a long, black, Pittsburgh stogie between his thick lips and in his hand, a glass of brandy.

On the distaff side was a tall, flashing brunette, voluptuous as to build and with a lack of morals equal to that of Ben Hagan. She was known as “French Kate.” He had met her and they had teamed up during an interval of his life when he was acting as a spy simultaneously for the Union and the Confederacy, accepting gold from each. He and Kate made a perfect partnership.

Hobey Sutton was a fixture at Hagan’s principal place of endeavor. He could play an accordion. It wheezed a bit, but under his long black fingers it would emit gay jigs and reels, music the customers hugely enjoyed.

In the Hagan bars, a drunken tool dresser, driller, oil scout, or oil operator had but little chance of escaping

THE VALLEY OF OIL

with his bankroll intact. If Ben Hagan couldn't get the money in some crooked game of chance, "French Kate" took over. She seldom failed. She was in charge of the department of vice that flourished in the dingy back rooms of the establishments. In all this, Hobey Sutton was a ready and eager accomplice. As he played the ancient accordion, he kept one eye rolled expectantly in the direction of the door leading to the rooms in the rear. In case of a disturbance, a casual case of a drunk objecting to being separated from his money, Kate would look out of the door, smile sweetly at Hobey and politely ask him if he would please come back and play a tune for the girls. Hobey would grin and hobble toward the door. Behind that door he kept a heavy blackjack which he could and did use with extreme care and savage effectiveness. The next morning, the victim would awaken in some alley, nursing a memorable headache and presently aware that he was penniless.

Hagan flourished during the short time Pithole City flourished. He had one major feud with a local character known as "Stonehouse Jack." They fought in public more than once, charging admission. They fought in private, mostly over "French Kate." It was, in part, a gangster war. Yet, after each bloody engagement, each emerged alive. At least three times bars were wrecked, shots were fired, and heads of comparatively innocent by-standers were broken in the personal melees of Hagan and Jack.

FRONT PAGE NEWS

After Pithole City became ashes and ruins, Hagan went elsewhere, set up public brothels and bars, sometimes masqueraded as gymnasiums. Chased from the oil fields, he bought a large river boat and used it as a combination bar, brothel, and gambling place, moving up and down the Allegheny River. The boat burned. He placed the blame on his old enemy, "Stonehouse Jack."

Years later, after a long career of crime, Benedict Hagan became a changed man, so he loudly claimed. He took up evangelism, made it most profitable, and employed tactics later to be used successfully by Billy Sunday, Aimee Semple McPherson, and other pious practitioners. He announced his intention of returning to the oil fields and saving the souls of the unregenerate.

Oil men have long memories. Sometimes they are bitter memories. When Hagan, face scrubbed and embellished with a sanctimonious smirk, alighted from his train at Oil City, Pennsylvania, he was greeted by a determined delegation of his one-time customers, who were carrying a suitable length of rope sandline.

Calmly, but with evident sincerity, the leader of the delegation informed Hagan that, if he persisted in staying, his stay would be a permanent one, as they proposed to lynch him forthwith and that no oil field jury would ever convict them of even disturbing the peace.

Hagan was not a coward. Nor was he a fool. He knew some of these men. A few he had robbed; some had been beaten in some of his dives; others he had cheated in various crooked deals. He knew them to be men of their

THE VALLEY OF OIL

word. He bowed, climbed back on the train, and sought other and safer pastures where he would be more appreciated.



Law enforcement in the city was almost non-existent. Dozens of dives flourished, probably fully as vicious and as boisterous as those operated by Hagan. The citizens of the city were largely male; they were hot-blooded, vigorous gentry. There was a steady demand for the wrong sort of women. The sorority of the featherbed prospered. Women flocked in from Pittsburgh, Philadelphia, and other towns and immediately went to work in some of the established houses. There was no amateur competition. The customers had money—lots of it—and prices of feminine favors had no ceiling.

FRONT PAGE NEWS

Soon the city grew to expect an interesting daily ritual. Some time during the afternoon, over a hundred of the whores would dress in their best, mount splendid saddle horses and canter sedately and circumspectly the length of Holmden, First, and Second Streets. The daily parade of the painted women emptied the bars and the streets were lined with expectant oil men. It was a neat, dignified way of advertising. It gave the prospective customer an opportunity of viewing the goods he might later purchase. It was, in a large measure, old oil men have informed me, purely decorous. The men on the sidewalk never uttered an impolite, slurring remark. The girls rode side-saddle, their lithe, luxurious bodies swaying gracefully to the gait of their prancing steeds. They never looked to the right or left. It was a pastoral performance, beautiful, touching, and completely bucolic. I used to know a trio of withered old oil men who spoke of the parade of the painted women with a faintly nostalgic and wicked twinkle in their elderly eyes.

At least one of this trio, a man of wealth and substance and a rugged pillar of his church, told me in confidence that he had known "French Kate" in her prime. Knew her rather well, it would seem. "Handsomeest wench I ever knew," he once confided. "I damned near stole her from Ben Hagan. Good thing I didn't! Hagan rammed a derringer three inches in my belly and told me if I didn't stay away from her, the next time he'd pull the trigger. I took the hint!"

THE VALLEY OF OIL

One of the girls, a tiny, lovely creature called Wealthy Dunham, died of pneumonia. She had been popular. The oil men decided to give her an elaborate and expensive funeral. The services were held in the newly built Methodist Church, a grim edifice that for decades survived the destruction of the town. The Swordsmen's Club attended in a body, sober to a man, and dressed in their best black broadcloth and finest linen. Years ago, Harry Mapes showed me a carefully preserved list of the pall-bearers. It contained the names of at least two oil men who later became nationally known figures. They were there as friends, sincerely mourning the loss of one whom they had grown to care for deeply and sincerely.

The wickedness of the town was a surface wickedness, understandable and natural in the circumstances. All manner of men swarmed in the bars of the sixty-odd hotels. Mostly every citizen, from the teamsters up to the owners of the most profitable oil wells, were out to make money. Possibly a majority of them were honest. Honesty, however, seldom attains publicity and fame. We hear only of the evil and spectacular in this most wicked of all worlds.

Most popular racket of the day was to acquire a leasehold on an acre of land and then raise the money to drill thereon an oil well. More than once, trusting individuals made such an investment, only to later discover that the original owner and promoter had disposed of as much as fifty 1/16 interests. This very

FRONT PAGE NEWS

naturally led to certain difficulties in the unscrambling of the financial structure involved.

Many a heated indignation meeting was held as a result of this nefarious and profitable practice. One gentleman with a sense of humor who had been separated from his bankroll, caused to be printed a formal resolution which could be used at the conclusion of all such indignation meetings.

The resolution became popular and it's still part of oil field legends. It ran something like this:

RESOLVED: If we, the undersigned suckers, ever catch the son-of-a-bitch who sold us a share in this venture, it is the sense of this meeting, that we jointly and severally agree to boil the bastard in oil, tar and feather him and ride him out of town on the sharpest rail we can find.

Fortunes were made and lost every day. Some of the fortunes were wholly legitimate, shrewd little ventures into what we are pleased to call our system of free enterprise. Men leased land, mortgaged their very souls, borrowed money from friends, relatives and entire strangers, to finance the drilling of an exploratory oil well. When they struck it rich, they repaid their loans and made others happy with sudden wealth.

Curious things happened. A young man, a Canadian, tramped from Canada to the oil fields, seeking his fortune. Four miles from Pithole City he sat down to smoke a reflective pipe in the shade of a long rank of boiler wood which was piled along the side of the road. He

THE VALLEY OF OIL

relaxed and wondered if what he had heard about the oil industry was true and if a young, lusty, honest and ambitious man could ever hope to succeed in it. He was penniless, but buoyed up with great and prophetic dreams.

A fat man, red of face and with an angry scowl, cantered down the road. He looked appraisingly at the cords of wood. He reined in his horse, fixed the young Canadian with a baleful eye.

"How many cords of wood piled here?" he demanded in a heavy, anxious voice.

The Canadian knew wood measure. He said simply that he would say there were probably three hundred cords of wood. It was a very accurate estimate and the man on the horse knew it.

"What's it worth?" he demanded vigorously. "Now don't try to hold me up! I know wood and I know prices. You'll probably try to tell me it's worth twenty dollars a cord. Damned if I'll pay that! Understand? It's not worth a cent over fifteen dollars a cord. No one but fools like Duncan or Prather would pay a cent more and they've got plenty of wood on hand so you can't sell them. Would you say fifteen dollars a cord was a fair price, young man?"

The young man was accustomed to Canadian prices for stove and boiler wood. "It's a very good price," he admitted.

"Sold!" roared the man, fumbling in his saddlebag. "By God, you're a decent man! An honest man, sir!

Here's your money, cold hard cash! I'll have teams hauling the wood away in an hour."

He touched spurs to his horse and thundered down the road. The young Canadian, being a man of action, put away his pipe, pocketed the thick wad of bills and hurriedly struck across the country in the specific direction of Canada.

He was scarcely out of sight when a long line of teams and wagons appeared and started to load and haul away the boiler wood under the directions of the red-faced man. About a hundred cords had reached drilling wells in Pithole City when a great and feverish outcry arose. Duncan and Prather, rightful owners of the boiler wood, discovered what was happening and they screamed, swore, and were otherwise publicly annoyed. The red-faced man felt badly, too. He went straight to the Bonta House bar, ordered a bottle of Allegheny rye and drank himself into obliviousness.

The young Canadian returned home, flashed his roll of bills. Later he bought one of the finest farms in the area, settled down and lived to a ripe and honored old age. The residents of that area, for years spoke feelingly of the marvelous opportunities for making money quickly that existed in the oil fields of the state of Pennsylvania.

Thievery on a grand scale, and grand larceny, were carried out with a lavish and open hand by otherwise respectable citizens and became commonplace in Pithole oil fields.

THE VALLEY OF OIL

As might be expected, there was a shortage of oil field machinery and tools. Hundreds of wells waited to be drilled and investors suffered acutely, not knowing if they were paupers or millionaires.

Oil men, the world over, are opportunists. Perhaps that spirit was engendered in the stirring and ruthless days and nights in the vanished city of Pithole. If an oil producer or a drilling contractor left his derrick unprotected for an hour, he might return to find the boiler gone, a cable missing, a drilling stem weighing tons, vanished into thin air. It mattered not that when he had left the boiler was fired up, carrying a full head of steam! Someone had been waiting for just this opportunity. When it came, men and teams arrived, worked swiftly, packed up and hauled away the machinery to some waiting derrick where it was quickly installed and put into action. It was a practice that was frowned upon but never seriously regarded as being outside the law. It was done as a matter of practical urgency.

"I had three boilers and two steam engines stolen on my third well," an old operator in Franklin, Pennsylvania, once told me.

"Must have been pretty expensive," I commented.

He laughed heartily. He was an old man, but the zest for life was still in him. "Hell, no! I just went out and stole me some replacements," the old chap admitted.

The legends of Pithole City are many. Yet, mostly they have a foundation in fact. It was a hustling, robust, colorful place. It had, curiously enough, a strong and

FRONT PAGE NEWS

virile civic consciousness. There was a daily paper, a file of which is in possession of the Drake Memorial Museum, at Titusville, Pennsylvania. It was a strangely dull sheet for such a lively community.

There was a reservoir, away back of the Methodist Church, and it held thousands of gallons of water. There was an opera house, a biggish affair, where many famous people appeared behind the kerosene footlights. There was a fire department, too; a fire department, however, which failed to function when fires raged through the city in the sad and dreary days of its ultimate dissolution. It failed, not because of lack of equipment but because the personnel, all volunteer, had departed to other and more promising oil fields—to the other rocket towns that screamed through their brief hours of glory.

CHAPTER XIV

Welcome to Pithole

John Botsford didn't believe a half of what the stage driver told him.

It was cold for April. He was forced to share a seat with the driver on the long and tedious drive from Titusville to Pithole City. Botsford was a small man, just back from the wars. He had served with Sheridan, wore the same type of dashing Imperial and moustache. Life on a New York State farm had proven to be entirely drab after having spent a few years riding and fighting with Sheridan through the South. There was no romance nor adventure in milking cows, chopping wood, hauling manure. He had read in a newspaper about the oil "excitement" in Pennsylvania, reports of the fabulous wealth some men were acquiring with unbelievable speed. He had learned to travel light in the

WELCOME TO PITHOLE

Army; so he had packed a minimum of clothes and headed for the oil fields, against the advice of his parents, whose counsel he later wished he had heeded.

The stage coach driver was talkative. The road was stickily deep with yellow mud and filled with deep ruts. The traffic was heavy, their progress slow. The stage coach driver was obviously a very superior sort of liar. He told my grandparent some tales that sounded pretty tall and impossible.

He said they were drilling in flowing wells almost every day, in and around Pithole City. Some of them were flowing at the rate of eight-hundred barrels of prime oil a day. Every barrel of that oil was worth eight dollars. The place reeked of money, the driver insisted. There were sixty hotels—and still not room enough to take care of the influx of visitors. One hotel, the Danforth House, was built on rented ground and the annual rental was \$14,000.

“This road is pretty bad,” the driver admitted. “But,” he added, “some rich fellers is goin’ to build a plank road from Pithole City to Titusville and charge a hellish toll for them as wants to drive wagons, stages, and carriages over it. Old Jim Rooker sold his hundred-acre farm for \$280,000 and lit out with his family for the West afore the fellers could change their minds.” He’d be goddamned, the driver snorted, if Bates & Bonta, the buyers, hadn’t turned right around and sold ninety leases off of the Rooker farm for \$400,000.

He babbled on and on. Botsford huddled deep in his

THE VALLEY OF OIL

worn cavalry cape and wished the man would shut up. He'd heard lies before. But this man was probably the most prolific liar he had ever listened to.

From the top of a hill, just at sundown, John Botsford caught his first glimpse of Pithole City, a mile away. He was impressed. The driver was winding his horses, and they steamed in the cold air.

"Thar she is!" he said, pointing with his whip. "Damned if she ain't the third largest city in the State and still growin'."

Three long streets stretched along the side hill and on the flats. Some of the buildings were four stories high. Almost as far as you could see, there were oil derricks starkly scattered over the landscape. In some sections, the derricks were so close that there was just room enough between them to drive a wagon. Steam from a hundred drilling engines mixed with the thin blue of wood smoke from boiler stacks. There was a smell of the smoke, mixed with a smell of crude oil, a new and exciting odor to Botsford. He sniffed, and decided he might like it.

The traffic was congested; thousands of wagons, pulled by horses that were virtually hairless, passed in an endless procession. The wagons were loaded with barrels of oil, some headed toward Miller Farm and the railroad, others for Titusville. The wagons rumbled endlessly, a continuous monotone familiar to the ears of the citizens of Pithole City. The driver said the horses didn't last long. Day-after-day exposure to the mud,

WELCOME TO PITHOLE

much of which was mixed with oil, had caused their hair to fall out.

There were a few carriages on the road and the streets of the hustling, hysterical town. Mostly, people traveled on horseback. Many of the saddle horses were beautiful mounts, Botsford noticed. He was an accomplished horseman, the natural attribute of the cavalryman, and he knew good horse-flesh when he saw it.

He dismounted stiffly from the stage, bade the driver a quick goodbye. He was cold and hungry. He entered the nearest bar, edged his way through a noisy crowd and called for a glass of brandy. A man in a soiled white apron, a slightly cynical look on his fat face, swiftly slid a filled glass along the bar. It was not good brandy but it was strong, warm and soothing to a man chilled by a four-hour ride in the open. John Botsford sipped it slowly and with quiet appreciation. He placed a five dollar gold piece on the bar and the bartender swooped it up and tossed it into an open cash drawer. After waiting for what seemed to him an appropriate period, John Botsford politely asked for his change.

The bartender rolled a fishy eye at him and explained very briefly that it was the custom in the town never to give any change. John Botsford bristled. This was a palpable injustice and a distinct outrage. Besides, such a practice was abhorrent to his thrifty Yankee soul and he didn't propose to be done in the eye. He countered the bartender's statement with some real cavalry profanity and announced that unless he received his change

THE VALLEY OF OIL

in a split second, it was his firm and open intention to climb over the bar and kick the bartender's teeth in. He was like that in those days. The bartender whistled softly and two burly men quickly, quietly, and purposefully closed in on John. He was slugged, choked, kicked, and subjected to other painful indignities in a very brief interval. The crowd watched and showed some interest. But no one interrupted. He was picked up, carried by the nape of his neck and the seat of his pants, to the door. The men grunted and with the smoothness that comes of long practice, heaved together and John Botsford hit the boardwalk, rolling into the deep mud of the street. He was a trifle dazed when he scrambled to his feet. A tall, dark, handsome girl had witnessed his humiliation. She laughed as he picked himself up and her eyes were dancing. As he watched her walk on down the street, John Botsford was seized with an unholy desire to throw a rock at her. Never had he hated a girl so intently and so furiously. He always claimed she was a devil. But he soon learned that her name was Susan McBride and that her sparkling brown eyes and her sense of humor never failed to react to a situation which amused her.

He would have hotly denied the possibility that within two years he would be married to this same Susan McBride. But that is another story.

That night he grudgingly paid three dollars for the privilege of sleeping on the soft side of a pine plank in a small cooperage shop. The next morning a man offered

WELCOME TO PITHOLE

him five dollars a day to drive a team, hauling oil. He strongly doubted the man's sanity, but his financial resources were near the vanishing point. He accepted, fearful that it was all a curious, unkind joke.

And that's how the Botsfords became an oil family.



Curtain

They built the plank toll road between Pit-hole City and Titusville. It was twenty feet wide, made of four-inch oaken planks. The sound of a horse on that road was a memorable and a very uplifting thing; when hundreds of teams and saddle horses traveled that wooden highway, the music of wheels and hooves was something men never forgot. Ancients in the oil industry still speak of the Plank Road with wistfulness.

The road had not been in use too long before strange and sinister things happened to the brawling city in the woods. The production of oil was still a new science. Oil men were discovering that there was more to it than just drilling a hole down to the oil sands, capturing the crude oil as it gushed forth and sending it to market. What that something was, they were not sure. All they

knew was that flowing wells were not eternal springs of liquid gold, that even wells that could be pumped, sickened and died slowly, the flow of oil withering, dwindling, day by day in a maddening, unprofitable way.

Pithole wells went the way of all wells of that period. They flashed, produced hugely, and then "the damned things just petered out," the oil producers complained.

Again, all of the immediate territory had been developed, every oil-bearing acre drilled and tested. Wildcatters moved further and further away—and came up with derisive dusters.

In February of 1866, a devastating fire swept the city, destroyed a part of it. The fire department didn't function. In May and in June, there came really climactic blazes that almost obliterated the gusty town. No one seemed to give a thin damn. There were new strikes being made, men galloped into town and spun tales across the bars about Cash-Up, Red Hot, Ball Town, Shamburg, Pleasantville, Skunk Hollow; the telegraph wires carried endless gossip about big wells, sudden wealth, and vast opportunities sprouting elsewhere in the oil fields.

On June 13, 1866, the biggest conflagration visited the city. How it started no one knew or seemed to care. Mostly, the buildings were made of hemlock, dry as tinder. Close to the town were hundreds of derricks, drenched with oil, and tanks partially filled with inflammable oil. The flames, under the lash of a steady

THE VALLEY OF OIL



breeze, grew in volume, crackled, and roared into the sky.

The exodus was almost complete before sunset. Two weeks later, the Danforth House which cost \$80,000

to build on land that leased for \$14,000 a year, was sold for \$16.

They left with great cheer, in wagons, carriages and on horseback. Many of them were deep in their cups. Looting had been easy. Saloons lost their stocks in jig-time.

Men still speak of the singing on that day. It had all started with a wave of Stephen Foster's gay and lilting songs, the music of which had a special appeal to the men and women of the oil fields.

There was one quartet composed of Ethan McCaslin, Mark Hanson, Ezra Hutchinson and John Mather, the oil field photographer. Ethan McCaslin could play a banjo in a lively manner. On horseback especially he was at his best. On this day he rode a black stallion, a horse that seemed to enter into the spirit of the day with complete abandon. The other men were also superbly mounted. It was their pleasure to dash a few hundred yards through the crowded traffic, horses at an easy gallop, then to ease down to a leisurely walk. At intervals a bottle would be passed and the quartet would break into song.

Behind them Pithole City blazed; a pall of blue and black smoke smudged the sky. McCaslin, acting as a sort of outrider, would be ahead, banjo twanging out silver dancing music above the clatter of hooves, the rumble of wheels. His deep voice would roar:

Oh the Camptown ladies sing this song

THE VALLEY OF OIL

Fifty yards back, the other three voices would swell joyously:

Du-da, du-da!

Then, at the top of the hill, they reined in by the side of the road facing the traffic, with wide cheerful grins on their faces. The horses pranced a little while the men sang *Oh, Susannah!* and their voices were spirited and inspired.

A dozen girls from Ben Hagan's came by, crowded in a couple of canopy-top carriages. The gentlemen graciously bowed; their voices roared into the song with a special zest:

*Oh when I get to New Orleans
I'll look all round and round,
And when I find Susannah, I'll fall right on the
ground.
But if I do not find her,
This darkie'll surely die,
And when I'm dead and buried, Susannah, don't
you cry.*

One of the girls openly sobbed and the gentlemen replaced their hats, partook not too sparingly of a bottle of brandy and galloped on ahead.

Down below, came an endless procession of men, horses and wagons. Everybody was cheerful. They were going to a new land, a richer land. Whatever they had left behind, it had been left with only a minor trace of regret.

It was a time for singing, a time for a little drinking. It was a time for a fellow to relax a little, to plan a little about how he could make a few dollars at Cash Up or Shamburg.

Frazer, always filled with cheer and zest, cantered out of a side road, watched the procession winding down the hill, away from the city for which he had been responsible. He owned some good territory at Cash Up, likely looking land. Pithole City had been good to him. He was now a man of substance, but also a man of rare good humor. Even later, when adversity kicked him mightily in the seat of his pants, he retained his talent for laughing, for shrugging off defeat.

A faint echo of a song filtered through the noise and confusion. He grinned, hummed a bit of it, and then broke into outright song with a solid, rollicking baritone:

*Old muley cow come on the track,
Du-da, du-da!
The bobtail fling her over his back,
Oh, du-da-day!
They fly along like a railroad car,
Du-da, du-da!
Run a race with a shootin' star,
Oh du-da-day.*

He was recognized, and a ragged cheer swept along the flow of traffic. He waved his hand, touched a spur to the little bay mare and slipped easily through the muddled traffic. Unless he was mistaken, that was Ethan

THE VALLEY OF OIL

McCaslin's voice away up ahead bellowing the chorus of *Susannah*. There was always brandy in close proximity to Ethan McCaslin. Frazer felt he needed a good nip of it. Maybe it would help to cure that curious choke in his throat.

Portraits in Oil



CHAPTER XVI

First Refiner

Samuel M. Kier, of Pittsburgh, Pennsylvania, was a tall, robust man with twinkling eyes, a full brown beard and a brain that seethed with ideas. He was possessed of tremendous physical energy, a capacity to dream, plus the ability and the courage to make some of his dreams come true. Also, he had luck.

He became, indisputably, the first oil refiner.

The fact that he refined and sold petroleum products years before Edwin L. Drake drilled the world's first artesian oil well at Titusville, Pennsylvania, is sometimes overlooked by casual historians of the oil industry.

Kier's life story is a curious mixture of Horatio Alger and J. Rufus Wallingford. He never overlooked a bet, never was troubled with too much in the way of scruples. Yet, a calm analysis of the man and his works,

THE VALLEY OF OIL

brings into emergence an individual who must have been worth knowing.

The War of 1812 was in its second dreary and tragic year when he was born. Twenty-four years later he had become a successful businessman, the partner of a man named Hewitt. A business executive at twenty-four years of age was unusual for the time, but everything that Samuel Kier ever did is in that category.

He and Hewitt acted as forwarding agents, the fore-runners of our modern express system. The partnership was making money; Kier was young, a splendid and convincing salesman, blessed with boundless health and a supreme optimism.

The panic of 1837 blasted the partnership into bankruptcy. Young Kier didn't waste any time licking his wounds. He was ambitious, eager, cheerful. He could and did laugh at disaster. A quick and accurate appraisal of his assets convinced him that his knowledge of transportation was a major asset.

It was characteristic of the man that he didn't hesitate, once his decision was reached. He formed *The Merchant's Line*, a canal transportation system that operated between Pittsburgh and Philadelphia, with an extension to tidewater at Havre-de-Grace, Maryland. He hustled, rustling up freight and passenger business, and Pittsburgh and Philadelphia business houses soon knew him by sight, recognized and liked his booming laugh, his infallible optimism.

The project flourished under his drive and manage-

ment. As the profits piled up, he paid, dollar for dollar, every obligation incorporated in the bankruptcy court decision. This rugged and outright honesty made him many friends, enhanced his reputation. As the business grew in volume, Kier hired a young man as a clerk. There was a heavy volume of clerical work to be done and Sam Kier detested detail work with a lively and vocal hate.

The clerk's name was Jones. He appeared as inconspicuous as his name. But Kier noted that the ledgers were always in shape, that collection losses were almost at a vanishing point. As time passed, more and more responsibility was passed on to the young clerk, who quietly and efficiently absorbed it. On a day in 1847, Kier slapped the young man on the back and said expansively, "Ben, from now on you are a full partner in this business!" It was an ideal partnership. The young man later became rich and famous. Benjamin F. Jones was destined to become the first head of the famous Jones & Laughlin Steel Company. It was Kier's luck or his good judgment which caused him to select the best man in the field for the work he wanted done. He was ever a man of good judgment. Also, he had luck.

Another partner of Kier's achieved some later fame. He was engaged with Kier in a project known as *The Independent Line*, another canal affair, where the canal boats were hauled on a railroad track over mountains and then dunked into water again on the other side—

THE VALLEY OF OIL

a somewhat fantastic enterprise, but one that worked and paid handsome dividends. This man was James Buchanan, later to become the fifteenth President of the United States.

Sam Kier was furiously engaged in industrious pursuits most of his life. He was never happier than when he had many different kinds of endeavors in hand. He was a natural hustler. At different times, he was engaged in the lumber business, in the making of fire brick in four small plants in Pennsylvania, in the pottery business, and in coal mining. He had an inquiring turn of mind, rare imagination and fine business talent. He did not always make money. Sometimes he lost. But all of the time he was building up a reputation, making friends, appraising every possible thing he heard or saw in an earnest endeavor to see if therein might not lie some opportunity to make a profit. Meanwhile, he was enjoying himself immensely.

It was inevitable that gossip about the Tarentum salt well fields should eventually reach him. Things were not going so well in the little town and some of the salt well owners were heavy of heart and filled with wrath which they vented in some very sincere profanity.

The little town of Tarentum was located close to Pittsburgh. Under the surface, about four-hundred feet to be exact, there had been found a vein of fine salt water, reached by drilling artesian wells. The salt water was pumped to the surface and evaporated and the salt reclaimed. The product found a ready market

FIRST REFINER

in an area that was entirely self-supporting and self-sufficient with the one exception of salt. Salt tediously and expensively brought over the Conestoga trail from Philadelphia, in lumbering Conestoga wagons, sold at a price the pioneers could seldom afford. There was great joy expressed in the Pittsburgh area when the salt wells were drilled and cheap salt became readily available.

The salt barons, really small businessmen enjoying a happy and profitable monopoly, prospered. However, disaster came along ever and anon, greatly to their sorrow. It seemed that every once in a while the artesian well drill would go just a trifle too deep and tap a vein of foul-smelling, greasy liquid that came to the surface with the salt water. Let just a little of that fluid reach the evaporating pans and the entire batch of salt would be ruined, as it would come out stained and with a most unsavory taste. There wasn't much of the fluid that reached the surface, but even a trifle could spoil a great deal of salt. The salt well operators saved the fluid in the hope that it might have some value, aside from its infrequent use as a lubricant. They were thrifty souls and waste was unthinkable. The fact that a salt well had to be abandoned was abhorrent—but unavoidable.

Sam Kier heard of what was happening. Filled with curiosity he came to Tarentum to gain some first-hand knowledge of what it was all about. The salt well owners, knowing Kier and liking him, lost no time in fully informing him. They presented him with a jug of

THE VALLEY OF OIL

the fluid. The only use they could find for it, they told him, was to use it to lubricate some of their water well machinery. They also told him that the stuff would burn readily, a fact he confirmed in a private investigation that cost him a part of his luxuriant beard.

He returned to Pittsburgh with his jug of oil. Before leaving Tarentum he ascertained that as much as two or three barrels of the greenish, strange smelling fluid was being produced in the Tarentum salt well field each week. Back home he started to think about the salt industry's byproduct. He was at this time a retail druggist. He knew something of the fortunes that were being made in the sale of so-called "patent medicines." This fluid possessed a certain medicinal odor, had the mysterious appearance of a prime nostrum. Long into one night he brooded over the matter, giving it his undivided attention. At last he arrived at a decision, laughed quietly to himself, and went to work with boundless energy to put his dream into reality.

This was in 1846. Before long, a strange procession of gold, green, red, and blue wagons left the Kier premises. They were as sensationally gaudy as circus wagons, designed to attract the eye of every beholder. The sides of these covered wagons were decorated with paintings of the Good Samaritan rendering first aid to a wounded Hebrew—the first aid consisting of a bottle of "Kier's Petroleum or Rock Oil." It was a neat paint job.

For years these wagons were a familiar sight along

FIRST REFINER

the highways of Pennsylvania, Ohio, West Virginia, Delaware and New York. The wagons were manned by high-pressure salesmen, gentlemen who knew the art of persuasive selling. The oil from the salt wells was placed in half-pint bottles bearing a beautifully executed label resembling a \$400 bill, stressing the fact that the liquid came from 400-feet beneath the surface of the earth, on the banks of the Allegheny River. At least one of the labels is still in existence and it shows a fine sense of the dramatic and is an excellent piece of engraving.

In a later day, Samuel M. Kier would have been known as a "merchandiser"—certainly the entire project of selling crude oil as a medicine was spiced with rare imagination and vision.

In proof of this, the language of the four-page circular which accompanied each \$.50 bottle is quoted verbatim, and if our theatre or movie people, or our modern medicine makers can improve on it, they have their jobs cut out for them:

Kier's Petroleum or Rock Oil, Celebrated for its Wonderful Curative Powers. A Natural Remedy! Procured from a Well in Allegheny County, Pa., Four Hundred Feet below the Earth's Surface. Put up and sold by Samuel M. Kier, 363 Liberty Street, Pittsburgh, Pa.

This healthful balm, from Nature's secret spring,
The bloom of health and life to man will bring;
As from her depths this magic liquid flows,
To calm our sufferings and assuage our woes.

THE VALLEY OF OIL

The Petroleum has been fully tested! It was placed before the public as A REMEDY OF WONDERFUL EFFICACY. Everyone not acquainted with its virtues doubted its healing qualities. The cry of humbug was raised against it. It had some friends—those who were cured through its wonderful agency. Those spoke in its favor. The lame through its instrumentality were made to walk—the blind to see. Those who had suffered for years under the torturing pains of RHEUMATISM, GOUT, NEURALGIA were restored to health and usefulness. Several who were blind were made to see. If you still have doubts, go and ask those who have been cured! * * * We have the witnesses, crowds of them, who will testify in terms stronger than we can write them to the efficacy of this remedy; cases abandoned by physicians of unquestionable celebrity have been made to exclaim: ‘This is THE MOST WONDERFUL REMEDY YET DISCOVERED!’ * * *

Its transcendent power to heal MUST and WILL become known and appreciated. * * * The Petroleum is a Natural Remedy; it is put up as it flows from the bosom of the earth, without anything being added or taken from it. It gets its ingredients from the beds of substances which it passes over in its secret channel. They are blended together in such a way as to defy all human competition * * *

Petroleum will continue to be used and applied as a Remedy as long as man continues to be afflicted with disease. Its discovery is a new era in medicine.

The circular is not quoted in full. The claims as to the curative powers of “Kier’s Petroleum or Rock Oil” were not entirely modest, yet the language is convincing, shrewdly woven into a variety of arguments designed to separate the suffering from a half-dollar. After

reading the claims, and even after weighing the very dubious testimonials, one becomes somewhat sympathetic with those dastardly cynics who raised the cry of humbug! They undoubtedly had something!

The sales were limited, in spite of the pressure. The sales costs were high. Kier was, in the final analysis, a good businessman, even if we do question his sincerity in this venture. He was no man to tolerate a loss, to acquiesce even to a moderate profit. He recalled his gaudy wagons, discharged his salesmen and arranged with a drug jobber to handle the distribution of his remedy, selling directly to drugstores. Even then, the margin of profit was low and unattractive, although the volume of sales increased.

Nights he brooded over the matter. Here was a raw material that he could secure for almost nothing. The salt well owners welcomed even a modest compensation for gathering the obnoxious fluid. It was a minor but welcome salvage for them.

Kier's major and pressing problem was, how to sell the stuff at a decent profit. He dismissed the idea of selling it as a lubricant. There were many other lubricants on the market and their price was so low that no sensational profit could be expected in that field.

He recalled how readily the oil had burned. Down in the cellar of his Liberty Street establishment, he experimented with the oil as a luminant. The experiments were far from being successful. True, the oil did burn, but the smell was something never to be forgotten.

THE VALLEY OF OIL

Neighbors complained about it. The flame, too, he noted, was irregular, ragged and yellow. Kerosene was being sold at high prices and was being refined from shale coal. It was a patented name, but its high price precluded the possibility of its ever becoming popular.

Someone told him about a chemist in Philadelphia, a man who taught the subject in one of the many colleges in that center of culture and learning. He placed a few bottles of the fluid in a valise, hurried to Philadelphia to consult this learned man. The professor smelled the oil, learned something of its history, guessed at its constituent factors, and quickly but correctly advised Kier to return home and try distillation. The Kier luck was still holding! The diagnosis, while only partially correct, proved to be most useful.

Kier returned to Pittsburgh a much happier man. He visited a local distillery where the famous Allegheny Rye was being made. From a still-man he obtained some basic but crude information about the art and science of distillation. He carefully absorbed every trifle of information given him.

Always a man of direct action, within the hour he had visited a hardware store where he purchased a huge iron kettle and cover. From a plumber he obtained the pipe for the construction of a worm. Outside the city he built his first still, a small affair of one-barrel capacity. The cover was tightly fastened on, the worm screwed on after the crude still had been filled with the Taren-

tum crude oil. Kier did most of the work himself, driving himself mercilessly, working far into the night.

At last he was ready to start the fire under the still. As the coal blazed and then settled into red coals, the still trembled a little as its contents began to boil. Kier, shirt open to the breeze, puffing energetically at a black stogie, hovered hopefully and eagerly over the discharge end of the worm. At last his hopes were realized, as a thin trickle of amber fluid drooled lazily into the receptacle provided for it. He danced a little, sang a lot, and stoked the fire impatiently.

That night he drove back into Pittsburgh at a rapid pace, eager to see if the distillant would prove to be a better illuminant. With trembling fingers he filled a lamp with it, noted that it was much lighter in color than in its crude state. With anxiety ill-controlled, he lighted the wick of the lamp. The flame burned more evenly, brighter than before. He was elated. Then his elation vanished as the stench of the burning fluid reached his nostrils. It was still foul, offensive, revolting.

"Goddammit!" he said very fervently. "Goddammit!"

He was no man to be easily whipped. He refused to quit. He wrestled with a problem that had become a positive challenge to him. He had the rare ability to reason most things out with cold logic. That trait came to his rescue. Two things were apparent: either the liquid needed additional treatment and purification, or

THE VALLEY OF OIL

the burner of the lamp needed improvement to adapt it to the liquid. Possibly the answer lay in doing both.

To his credit, let it be recorded that he went to work, found partial solutions to each urgent problem. He bought every type of lamp on the market, tried them out patiently, one by one. The cellar workshop became a place of light, a pit filled with strange and unpalatable odors. When the neighbors complained, he looked at them with haggard eyes. His temper was short. He invited them to (a) go to hell or (b) move out of the neighborhood.

Convinced at last that no single burner on the market was suitable to his distillation, he invented a four-pronged burner of his own, one that admitted air to the flame. It was a big improvement over anything he had tried. He knew that it could be manufactured at a low cost. Yet, strangely enough, he didn't stop to patent it.

Next, he turned to the improvement of the liquid. He knew nothing of the use of acids for the purification of the distilled product, a system commonly used in later decades when oil refining began to become a science. One day the idea came to him that if one distillation "run" purified the oil to a certain extent, perhaps another would further improve it and purify the product. It was a sound hunch. In his new lamp the double-refined or distilled illuminant really worked. The flame was clear, white, brilliant and the odor almost negligible. The Kier luck was still holding!

FIRST REFINER

Kier's "Carbon Oil" found a ready market. He was able to sell two barrels of it daily at \$1.50 a gallon. His gross income was in excess of \$40,000 a year from this one source alone. He was the same Kier, however, hustling, bustling, seeking new fields of commercial endeavor. His normal cheerfulness, however, was somewhat subdued. For once, the Kier luck seemed to have run out. Here he was with a good product for which there was a ready demand at a decent profit, yet he could not expand or enjoy to the fullest the vast potentialities he knew existed.

His difficulty was that the business was founded solely on a byproduct. His *good* luck, his future expansion, he used to complain, depended on the *bad* luck of the Tarentum salt well drillers. Unless they managed to strike some oil, he could not hope to expand his business.

He grinned wryly once when a prominent salt baron looked him squarely in the eye and remarked, "Mister Kier, I can only hope that your prayers are never answered! Something tells me that you might pray for bad luck for us in the salt business!"

Kier replied, "I'm not a pious man, but perhaps you have given me an idea worthy of consideration."

But the Kier luck did hold. Close to the little village of Titusville, Pennsylvania, a man named Drake was to provide him with all of the raw crude oil he could use. Indeed, the first oil shipped by water from the Drake oil well, was consigned to Samuel M. Kier at

THE VALLEY OF OIL

Pittsburgh, who immediately increased the capacity of his crude still to five barrels.

Kier visited the first oil well and became acquainted with Edwin L. Drake. The men were unlike, yet they became fast friends. Drake was puzzled, deeply worried. Daily the supply of crude oil from his well increased in the storage tanks. He had no idea how to dispose of it. Kier expansively offered to bring Drake and his good friend George W. Mowbray, a chemist associated with the old and established firm of Schieffelin & Company, together. Through this meeting was established a business relationship that resulted in an arrangement for Schieffelin & Company to handle all of the oil produced by Drake and his associates, on a commission basis.

Kier, now fascinated with the newly fledged oil business, soon became an oil producer. His luck still held. His prosperity grew, but as it grew his health declined. He had worked too hard, driven his great body beyond endurance. He had taken a great and outright joy in the making of money, in the many ventures and adventures of a picturesque career in many strange and curious fields. Ill health partially destroyed his fine humor; bed-fast, life lost its previous zest.

He died on October 6, 1874, at the age of sixty-one.

He was the world's first refiner of petroleum; he was also the first petroleum marketer. As such he deserves more credit than he ever received during his active, joyous life.

CHAPTER XVII

Transportation Tribulations

The Reverend A. L. Dobbs squirmed uneasily under the malicious fire the bishop had lighted. Dobbs was a man of considerable girth and he was blessed with a voice that would carry. He had a way with men, a nice sense of timing, and settled judgment. He was ideally adapted for the extra-curricular post he had assumed under extreme pressure.

The bishop was a small man, but determined. He had a Duty to perform and he proposed to do it. He didn't approve of some of the things the Reverend Dobbs had been doing. He so stated in fitting, dry, and biting phraseology. He quoted the Scriptures, the strict tenets of the Church and his own concept of both. He was not niggardly in his talk and Dobbs was uneasy, worried.

He ran a big hand through an abundant red beard

THE VALLEY OF OIL

and pointed out that Jonathan Watson, a pillar of his church, had personally pleaded with him to take the post. He added that Watson's annual contribution to the church was a most substantial amount.

"But," protested the outraged and shocked bishop, "it is still a mortal sin in the eyes of the Church to labor on the Sabbath. I forbid it. It must cease! You were ordained to talk from the pulpit and not from a mill dam! Even if the work takes only a few hours, even if you are still able to conduct your regular services, you set a bad and outrageous example."

In the face of the ultimatum, the Reverend Dobbs remained gloomily silent. He was counting his blessings. His Titusville church paid him \$300 a year. His new post was paying him more than six times as much. His personal conscience was clear. He had a large and a hungry family.

"Sir," he informed the bishop in a deep, determined, and booming voice, "I intend to keep this new post. I shall not neglect my usual clerical duties because of it. I will do both jobs to the best of my ability. If it pleases you to displace me and put a new man in the pulpit, I shall not protest. I suspect, however, that Jonathan Watson, in such a circumstance, will withdraw his financial support and the new pastor will starve to death and there will be another empty church in your diocese. May God bless you and guide you in your decision, Sir."

The bishop glowed with anger as he left. He walked

TRANSPORTATION TRIBULATIONS

stiffly and the back of his neck was a brilliant red above his white clerical collar. The Reverend Dobbs grinned. He had won. The bishop could ill afford another empty church. . . .

Dobbs had a hard job and one he found exciting. It called for a few hours work each Wednesday and Sunday. He was the superintendent of the millpond, close to where Drake had drilled his well. It was his responsibility to jockey hundreds of boats of all sizes and types, lazily floating in the waters of Oil Creek just below the dam. These boats, many of which were called *guipers*, were each loaded with from 25 to 50 barrels of crude oil, cargoes headed for market.

Drilling and finding crude oil was one thing. Getting it to the market was another. The fast-growing oil industry was coming to grips with the basic problem of logistics. Its solution was primitive but effective.

Titusville had no railroad. The roads around it were narrow, almost impassable. The problem was to get the oil to Pittsburgh. Oil Creek, under certain circumstances, provided the only outlet. The crooked, twisting creek, however, was extremely shallow in many places, so shallow that the waters would not float a loaded boat. To overcome this, to make the creek bed passable, the big millpond would be filled to overflowing. When the water was released it raised the creek level from two to three feet, and for a few hours heavily laden boats would pass down the fifteen mile channel to Oil City where the barrels of oil could be transferred to

THE VALLEY OF OIL

bigger boats and thence floated down the Allegheny River to Pittsburgh.

The opening of the dam gates required a nice sense of timing. The hundreds of loaded boats had to be properly aligned below the dam. They had to be manned with pilots who knew the entire channel, men who could swing the long steering sweeps with precision.

Getting the array of boats ready for their plunging ride was a job that called for a man with a booming voice and a certain amount of patience. The Reverend Dobbs proved to have all the characteristics required. His voice would ring out over the tumult and shouting and when the loaded boats were, in his estimation, properly aligned, he would signal for the gates to be opened.

The waters rushed out, lightly picked up the boats and gave them a gentle nudge down stream. But, as the



TRANSPORTATION TRIBULATIONS

volume of water increased, the pressure of the boats in the extreme rear hustled the leading boats cruelly, making the steering efforts of even the strongest and most skilled crews of slight avail.

Sometimes the leading boats would capsize, spilling their barrels of oil. Sometimes boats in the rear, driven by the savage force of the released waters, would rear and buck like unbroken colts, riding up and over smaller and slower-moving boats. Again, this often resulted in the loss of a cargo of precious oil. The fifteen mile stretch of Oil Creek between Titusville and Oil City was a lively area when the oil boats came down, hell-bent and often out of control. Often the wooden flotilla met other boats laden high with empty barrels, being dragged up the creek by tired and muddy teams of horses. Collisions were frequent; men were often sadly mangled and dozens of horses were killed or maimed on such occasions.

It cost the oil producer a dollar a barrel to ship his oil in the flatboats. No guarantee was asked or given that the oil would reach the beachhead of the Allegheny River at Oil City.

As the peak of the flood reached Oil City, there would be lifted a great shout: "Pond freshet!" and the citizens all came streaming out of the bars and warehouses to watch the end of the racing fleet of oil boats. Very often some of the fleet would be out of control and would end on a sandbar in the river, leaning drunkenly and spilling part of their contents.

THE VALLEY OF OIL

As oil barrels were spilled, the men in the boats, more concerned in salvaging what was left of the cargo, paid scant attention to where the fugitive barrels went. More than one of the early oil field fortunes stemmed from the agility and enterprise of men who made a profitable business of salvaging the spilled barrels of oil and selling them for their own account. In passing, it may be said that this business was not looked upon with disfavor, nor was it considered in the least dishonest.

At Oil City, the barrels were reloaded on larger boats that slowly floated down the broad Allegheny River to Pittsburgh, where the oil was marketed. Several small steamers plied between Pittsburgh and Oil City; they were an essential link in the transportation system that enabled the early oil producers to carry the new mineral to a waiting market.

One job of these steamers was to bring back the crews of the oil barges and to haul the empty barges back to Oil City. To the clerks of these steamers was entrusted the responsibility of selling the oil, collecting the money for it, and delivering the funds to the producers who would be waiting on the wharves at Oil City. All business was conducted on an honor basis. No books were kept; no receipts were given or demanded. Yet there is no evidence in the records that any one of the steamboat clerks ever defaulted or betrayed the trust involved, and millions of dollars figured in this business.

But, as the oil fields expanded, as the production of oil increased, and as new refining facilities became avail-

TRANSPORTATION TRIBULATIONS

able, it became evident that the entire prosperity and well-being of the fledgling industry rested upon finding a solution to logistic problems that steadily became more urgent.

The teamsters, who hauled oil from stock tanks to the railroads or to refineries, were a hard-bitten, relentless, swashbuckling crew. They owned about 12,000 horses and wagons. They were a law unto themselves. They had, for many decades, an absolute monopoly on the transportation of crude oil from the wells to destination.

They started out with a moderate charge for hauling from three to seven barrels of oil per load. Then, as they witnessed the amazing spread of the industry and the prosperity of the oil producers, they started to increase their charges. At one time they charged as much as \$5 a barrel for a six mile haul. When the price of oil was \$20 a barrel, this was a charge the producers could afford to pay, even though it was exorbitant. But, when the price of oil dropped to \$6 or \$7 a barrel, the producers were sadly pinched in an economic squeeze. Yet, there was nothing they could do. A few producers had attempted to use their own teams and wagons to haul their oil. The teamsters acted immediately, shut such competition off sharply and with brutality. Men were slugged and beaten, horses were hamstrung. Once in a while a stock tank caught fire, a calamity that was not accidental. The oil producers were helpless. The team-

THE VALLEY OF OIL

sters were in the saddle—arrogant, determined, and ruthless.

Even after the plank road had been constructed from Pithole City to Titusville, permitting heavier loads to be hauled on the wagons, transportation costs continued to be high. Old records give a clear indication of basic costs involved in the delivery of a single barrel of crude oil in New York:

Government tax	\$ 1.00
Cost of wooden barrel	3.25
Haulage, Pithole to Titusville	1.25
Freight to New York City	3.65
Cooperage and platform expense	1.00
Leakage25
<hr/>	
TOTAL	\$10.40

At a secret meeting held in an empty farmhouse at Tarr Farm late in November of 1861, the embattled and almost baffled oil producers discussed the transportation tangle. There seemed to be no way out and the meeting was both gloomy and liberally lightened with profanity.

Heman Jones, an oil producer and speculator, well known and respected by every man in the room, leaped to his feet and made a revolutionary proposal. He proposed a four-inch wooden pipeline from the Tarr Farm oil fields to the Humboldt Refinery, a few miles down along the banks of Oil Creek. The oil would run by

TRANSPORTATION TRIBULATIONS

gravity through this pipe. The proposal was received with cheers. Instantly, producers almost fought to finance the project. Here, it seemed to them, would be the solution to the transportation stranglehold the teamsters had on them.

Garrison Lightweller, a lawyer, was present. He came to his feet, made himself heard over the tumult and exultation.

"I just want to remind you gentlemen," he said quietly, "that according to the law of the Commonwealth, such an enterprise as has been suggested requires that the Legislature grant a charter."

This statement calmed the excitement of the crowd but failed to lessen their enthusiasm. Plans were made for an appeal to the Legislature for the charter. Someone was designated immediately to approach contractors for estimates as to the cost of the wooden pipeline.

Somehow, the news of the project reached the ears of the teamsters. When the appeal for the charter was made to the Legislature, representatives of about 5,000 teamsters appeared before that body and managed to quash the appeal. This was early in 1862. The oil producers were dejected and the teamsters were elated. Coincidental with the defeat of the charter application, the teamsters raised the price for hauling oil. It was rubbing salt into an open wound and the oil producers writhed and muttered long and in vitriolic terms.

At the depth of their despair, J. L. Hutchings, of New Jersey, appeared on the scene. He was a small man with

THE VALLEY OF OIL

thick glasses, a bubbling enthusiasm, and vast optimism. He was the inventor of a new type of rotary pump. By using this pump, he assured a group of somewhat cynical oil producers, it would be possible to pump oil through a pipeline up and over any hill or mountain. Tests were made in secret and the rotary pump proved to be mechanically perfect.

Hutchings had courage, some money of his own, and the ability to translate his enthusiasm to others. Plans were made and eventually a two-inch pipeline was laid from the Tarr Farm to the Humboldt Refinery at Plumer. The pipe had imperfect joints and leaked furiously under the pressure exerted by the rotary pump. Yet, some oil did reach the refinery, enough to convince some oil men that the pipeline did hold out some degree of hope for the dilemma in which they were enmeshed.

The morning after the first pumping of the oil through the line, the dismayed Hutchings found the entire pipeline had been torn up and utterly destroyed. The rotary pump had been smashed into a jumble of parts—obviously the work of the teamsters. A delegation of them called on two of the oil producers who had helped to finance the project and coldly informed them that if they persisted in the construction of any pipeline they might expect to awaken almost any time to find their homes on fire, or they might even be killed. One teamster sought out "Hutch" and horsewhipped him savagely, warning him to leave the oil fields immediately.

TRANSPORTATION TRIBULATIONS

But Hutchings was made of sterner stuff; the small man had rare courage, the fighting spirit of a game cock. He refused to quit and let the teamsters know that he carried a pistol, which he proposed to use if they attempted violence on his person again.

By 1863, Hutchings was ready to try again. Into this venture went the last cent of his capital. This time, his pipeline was between the famous Sherman Well at Pit-hole City and the railroad terminus at Miller Farm. In an effort to avoid the leakage of screwed joints, he used cast-iron pipe with lead sockets at the joints. The line was two miles in length. The pumps were started; the men patrolling the line were armed in case the teamsters attempted to destroy or cripple the line. No sooner had the pumps started when a despairing shout arose. At every joint the oil was spurting out. The jarring of the pump had loosened the joints. No more than twenty-five per cent of the oil that started through the pipeline reached the refinery. But just to make sure, the teamsters tore up the entire line under cover of the darkness that night.

Hutchings tried again. Oil men were desperate, willing to finance anything that would promise to lower transportation costs. Again, the project failed.

Hutchings was a sick man. He died in a few years. The doctor's report was that he died of pneumonia. His friends always believed that the direct cause of his death was a broken heart. He was a courageous, fighting pioneer whose efforts were not to prove futile.

THE VALLEY OF OIL

In 1864, the Western Transportation Company was formed by oil producers for the purpose of constructing another pipeline. The oil producers went to Harrisburg and literally bludgeoned the Legislature into granting a charter, in spite of the protests of the teamsters who fought against the granting of the application. Hastily, a new pipeline was built from the Noble & Delemater Well to Shaffer, a five-inch line of which much was expected. On the first test, the line failed dismally. An Oil City newspaper reported, "The pipeline leaked like a fifty-cent umbrella." So badly did the line leak that the teamsters didn't think it necessary to tear it up.

All of these trials and tribulations appear to have been the prelude for the entrance of Samuel Van Syckle, late in the fall of 1864.

Van Syckle was a tall, laughing, young chap, blessed with courage and daring. His eyes were gray and penetrating. No sooner had he appeared in Titusville, than he let it be known that he proposed to build a successful pipeline and that he would brook no interference from the teamsters.

Indeed, he hunted up Martin Bryan, the huge, vicious, hulking leader of the teamsters. He found him in a Titusville bar. He tapped Bryan on the shoulder, looked him straight in the eye.

"Bryan, they tell me that you are the leader of the teamsters and that you have sworn no one will ever build a successful pipeline," he said quietly. "I want you

TRANSPORTATION TRIBULATIONS

to take a good look at me. I'm Sam Van Syckle. I'm going to build such a pipeline and be damned to you and your gang! I am my own law. Make one move to damage what I propose to do and every man so engaged will be hurt. You'll not be hauled into court. But, you'll be hurt by experts, and badly hurt. Understand?"

The bar was quiet. Bryan had a reputation as a killer; he was heavier than Van Syckle, but there was something about the man who stood up to him that took his usual bravado away. He glowered at Van Syckle and swore huskily.

"Let's wait and see who wins, my bucko!" he answered.

Van Syckle smiled, flipped a gold piece spinning along the bar toward the bartender. "A drink for every one," he invited. "Including Mr. Bryan!" Then he turned and slowly walked out.

Samuel Van Syckle had a sense of the dramatic, an assurance that caught the fancy and the affection of the oil men. He came to the oil fields with substantial financial backing. Behind him, providing him with funds, were Henry Wood and Henry Ohlen of New York, who had tremendous faith in him. He asked for no money from oil producers.

He hired men to work for him, selected husky men, men who had a reputation for being able to handle themselves in a rough-and-tumble fight. He told them frankly that both before and after the pipeline was built they could expect trouble. He told them that if they

THE VALLEY OF OIL

were injured their wages would continue while they were incapacitated and that he would pay all doctor bills. "And," he grinned, "there will be a nice bonus too, especially if one of you clouts the b'jasus out of any interfering teamster!"

His construction crew liked that kind of talk. They liked their new boss, discovered that he expected them to put in an honest day's work, and respected him all the more for it.

They dug a two-foot ditch for the pipeline. "If the teamsters want to tear up this line, they will have to do a little honest work to get down to it," Van Syckle said.

Each joint of the pipe was tested before it was buried. Van Syckle personally watched each joint properly screwed together—and there were many joints in the two-inch line that ran from Pithole to Miller Farm. At Pithole, there was one big pump house; what is known today as a "booster" pump, was installed at Cherry Run, to push the oil through the line on a heavy upgrade. The "booster" arrangement was revolutionary, an idea that can be credited to Samuel Van Syckle.

Day and night, Van Syckle's men patrolled the two miles. They were armed only with hickory clubs. They were alert, spoiling for a fight.

"You'll get it, lads!" Van Syckle promised them. "Just wait until we start pushing oil through this line. Then you will see their hordes descend on us."

On a blazing hot day in August, 1865, all was in

TRANSPORTATION TRIBULATIONS

readiness. Van Syckle, remarkably calm, was the center of a small, intent, excited group of oil producers gathered around the rough hemlock shack housing the boiler and pump at the Pithole end of the line.

Steam was up in the boiler. Van Syckle nodded briefly to an engineer beside the pump and the man opened a throttle. The pistons of the big pump started their endless journey back and forth. Steam spurted from the exhaust. Van Syckle bent over a gauge, smiled, and reached for a rifle standing in a corner of the pump house. He leaped for the door, stood for a moment in the hot sun and raising the gun fired into the air—the signal to the men at the other end of the line that pumping operations had started.

Anxiously the men waited—silent, intense. Only Van Syckle was calm, self-assured. He consulted his watch, lighted a cigar, clapped Henry Wood on the back. "In five minutes the oil should be spurting out at the other end of the line," he said. "It will take some time to push the air ahead of the oil. Rest assured, gentlemen, this line is going to work."

Even as he finished talking, there came the faint sound of a shot from over the hill. It was the signal that the oil had reached the terminus.

Leaving men to guard the pump house, Van Syckle and the group rushed to their horses and leaped into the saddles, spurring to a fast gallop for the dash to Miller Farm.

Arrived there, they found another equally excited

THE VALLEY OF OIL

group around a large stock tank. They climbed to the platform around the top of the tank. The outlet pipe was releasing a solid stream of golden-green oil! There was no leakage and the pipe was delivering a full two-inch stream of oil.

"Gentlemen, we have won the first round of your battle against the teamsters!" Sam Van Syckle proclaimed. Then he became solemn, intensely serious. "There will be trouble, no doubt of that. I propose to handle that trouble myself, in my own way. There will be broken heads. This is war and it's not a war of my own choosing. I'm going to fight it my own way, however, a pound of violence for every ounce of aggression. If we are whipped this time the oil industry will never win—and we will be subjected to more and more of the economic tyranny the teamsters have been imposing on the industry. I ask of you gentlemen only that you have faith in me."

Van Syckle was right. There was trouble. The teamsters raged when they learned that the newfangled pipe line was pushing 800 barrels of oil per day through from Pithole to Miller Farm. They were infuriated when they were told that the charge for piping the oil was only one dollar a barrel.

That night, in a little valley near Pithole, Martin Bryan held a meeting of the teamsters. It was a wild, swearing, yelling crowd that demanded action. A board of strategy planned the first attack. Two hundred men were involved. Shortly after midnight, in-

TRANSPORTATION TRIBULATIONS

flamed with liquor, they went into action. Their plan was to strike at three points, to dig up the offending pipeline, hitch teams to it and twist it into uselessness. It was a dark night. Under the light of the stars the men and teams moved into position.

Van Syckle was ready for them. His guards were alert, eager for the encounter. A whistle shrilled as a group of teamsters barged forward, armed with picks and shovels. They were met by squads of well-drilled, sober men who knew how to swing a thick hickory club. There was tumult along the line. Horses were stampeded and in the darkness the teamsters often attacked each other. Van Syckle's men wore white arm bands and didn't suffer from such errors. The teamsters were roundly routed. Many of them had broken bones and cracked skulls. Three of Van Syckle's men suffered injuries.

The next attack occurred in broad daylight. But, again the teamsters suffered a bad beating. They then resorted to other tactics. Two or three stock tanks were set afire. After that the producers guarded their property. Several of the arsonists were peppered with loads of birdshot before they could cause any damage. They had no liking for shotguns at short range.

Stubbornly, the teamsters continued their night raids. The oil producers offered Van Syckle any help he needed, but he rejected all offers.

"This is my fight," he would say wearily. He was very tired; for a week he had got but little sleep. The

THE VALLEY OF OIL

morale of his patrols was very high. He saw that they were fed, looked after their comfort, and virtually lived with them. "If I can stick it out a few more days, the fight is won," he told his friends.

The final attack of the teamsters resulted in the death of one of Van Syckle's men. He was shot in the back, after dark. It was the first time a gun had been used. It was to be the last. Samuel Van Syckle decided that. He was tired, stirred by a vast anger, consumed with impatience.

He leaped into his saddle and galloped straight to the Danforth House in Pithole City. He tied his horse and walked slowly but purposefully into the ornate bar. He knew he would find Martin Bryan there. As he entered, conversation hushed. Van Syckle strolled over to the bar, ordered and drank a glass of brandy. Over at a table near the wall, Martin Bryan was sitting with three friends. He wore a short, scrubby, black beard beneath his wide cruel mouth. His hands were tremendous. There was a legend that in a fair fight he had once killed a man by striking him with those hands. His small eyes were watchful and wary as he watched Van Syckle walk easily toward the table. He came to his feet beligerently. Beside his bulk, Van Syckle looked frail but he looked Bryan squarely in the eye and his voice was level and calm.

"It's time for a showdown, Bryan," he said. "Today one of my men is dead; Pete Billard, one of my best men. Shot by one of your thugs last night, on your orders!

TRANSPORTATION TRIBULATIONS

Tonight this war ends. Stand up and fight me, Bryan; if you win I leave the oil fields and you and your bullies can run it for all I'll care. If I win, you leave and this violence ends. Have you guts enough to agree to that?"

"Yah! You lily-fingered fool, we've got you whipped, or you wouldn't try to make a deal like that," Bryan charged.

Van Syckle's hand came up and he slapped Bryan's face. It was a sharp blow, deliberately designed to provoke the other into action. It succeeded. Bryan roared a blasphemy, swung heavily at his tall, slender opponent. Van Syckle laughed and stepped inside the swing and jabbed a short, punishing right swing to Bryan's face. It was a vicious fight and it lasted overlong, in the opinion of Bryan's friends. Van Syckle was a boxer. He purposely set about punishing Bryan as he had never been punished before. It was an eminently successful project. He jabbed and cut at the wildly swinging man, marking him badly and with malice and intent behind each blow. Once Bryan did connect with a solid, crushing blow and Van Syckle dropped to the floor, dazed and badly hurt. With a wild yell, Bryan charged in for the kill. He lifted one heavy boot, swung it viciously toward Van Syckle's face. Jim Greenlaw, an oil producer, stepped forward just in the nick of time, nudged Bryan off balance. He fell awkwardly on the floor, scrambled to his feet and started to swing on Greenlaw but was stopped when he saw that Greenlaw's hand held a derringer. It was pointed straight at the belly of

THE VALLEY OF OIL

the teamster boss. "Tend to your fight, man," Greenlaw said crisply. "Just fight fair, or you'll leave here with lead in your belly!"

Van Syckle was back on his feet. He fought gamely, withstood every rush of Bryan until he regained his wind. Then, with a viciousness his friends did not know him capable of, he set about the punishment of Bryan again. Slowly, surely, inevitably he beat his man, striking him almost at will, cuffing him, jabbing, hurting. At long last the battered Bryan sank ignobly to his rear on the floor. His face was a bloody mass; his eyes were swollen almost shut and his thick lips drooled blood.

"I quit," he whimpered. "Just don't hit me again, please!"

Van Syckle stood over him, smiling just a little. The crowd was strangely quiet. "Bryan, I want you to leave the oil fields within the hour and never return!" he said slowly. "If you are still here after this hour, there will be a warrant issued charging you with murder—and the charge can be proven. One of your men squealed. And tell your men the war is over. The pipeline is here to stay."

Bryan stared groggily up at him, struggled slowly to his feet, blindly stumbled out of the bar. Van Syckle was very tired. But he was cheerful and the old arrogance returned. "Gentlemen," he invited, "will you join me in a drink?"

Bedlam broke loose. The war, indeed, was over. Every man present realized it. Martin Bryan's power

TRANSPORTATION TRIBULATIONS

and prestige with the teamsters was gone. The oil industry had been rescued from the economic squeeze that had threatened its life. There was more than one drink put down in the Danforth House that night. The jubilant oil producers celebrated long into the night. At dawn, the long form of Samuel Van Syckle, lying inert on a shutter, was proudly borne by cheering and wabbling companions up Main Street to the Bonta House, where he lived. He was half asleep, half drunk, as he was undressed and placed in his bed.

He partially opened one gray eye and surveyed a circling room and friends that wavered in a delightful and amusing mist. "Pipelines is—mean, pipelines was; no, damn it, mean pipelines are lotsa fun, specially if you don't drink too mush brandy." It was not a profound statement, but he felt that there was something he was expected to say. But while he was trying to think out something to add to his original statement he fell sound asleep. He was young, tired, happy and pleasantly filled with brandy.

Getting the oil to the railhead was only the first step to distant markets and refineries. Freight on wooden barrels was excessive; shipping facilities were limited; leakage and evaporation losses were heavy. Theft from cars in transit represented another factor.

In 1865, Densmore, Watson & Company, oil producers, under the urging of Clinton Roudebush of New York, who was buying most of their output, de-

THE VALLEY OF OIL

cided to do something about the railroad shipment of crude oil.

They built two big wooden tanks on a flat car, filled them with oil, and shipped them to Roudebush. The car arrived with the contents intact. Roudebush wrote the producers an enthusiastic letter, urging them to build and install more wooden tanks on flat cars. This they did. Freight costs went down.

When railroad officials asked Roudebush as to the capacity of the wooden tanks, he informed them that they held from forty to forty-five barrels of oil. Freight rates were based on this capacity for nearly a year.

Then a man named Sweetzer, a precisionist and a stickler for accuracy, measured the fluid contents of the tanks and discovered that in reality they held from sixty to sixty-five barrels. Immediately there was a revision of freight rates—upward!

Clint Roudebush laughed heartily when he was informed of the rate boost. He could afford to laugh. He had been receiving twenty barrels of oil freight-free, on every shipment. True, he had been paying Densmore, Watson & Company true fluid measure on every barrel of oil he bought, but he was away ahead of the game and the railroad wisely did not try to make their new rate retroactive.

The new idea caught on rapidly. Dozens of cooperage shops in the oil fields, engaged in the making of wooden barrels, had to go out of business. They felt pretty bitter about it too and wrote letters to oil field newspapers

TRANSPORTATION TRIBULATIONS

complaining that the steady march of progress and invention was ruining their business and that there ought to be a law against such outrages.

For many years, shippers had to supply and install their own wooden tanks on flat cars. The Oil Creek Railroad, later to come under the house flag of the Pennsylvania Railroad, made one of the first progressive moves that helped to simplify the transportation problem as it related to the rails.

In 1866 they entered into a contract with Dillingham & Cole, machinists and coopers of Titusville, to supply them with sixty tank cars, equipped with special valves and special wrenches designed for use in opening the valves. These cars they rented to oil buyers; the special valves and wrenches virtually guaranteed that losses from theft would be cut to the minimum. The cars, however, were still made of wood. Parked on some lonely and unguarded siding, it was still possible for men equipped with augers to bore holes in the tanks and steal dozens of barrels of crude oil. Losses continued to be heavy from such depredations.

In February of 1869, there came a new and radically different type of tank car that quickly took the oil fields by storm. Its popularity was due to its utility. It was made of iron and its capacity was far beyond the two wooden tanks previously used. It was leak-proof, thief-proof. In addition, the iron tank cars were built with a dome, as they are today. This dome is to give room for the expansion of the oil under increases in

THE VALLEY OF OIL

temperature. Previous to this, cars often arrived at their destination with their tops blown off because no provision had been made for the simple laws of expansion. The new cars were also equipped with special valves to expedite their loading and unloading. Special wrenches had to be used to release the oil from the tanks.

There were still thousands of wooden tank cars in operation. It wasn't until 1880 that the last of the wooden tanks cars faded from the picture. Later, steel tank cars replaced those made of iron and capacities were further increased.

CHAPTER XVIII

Coal Oil Johnny

*H*auling oil from the wells clustered along the twisting course of Oil Creek paid very fair wages, but it could hardly be called a career. It was hard work, especially unpleasant in March when the mud was deep and sticky.

Johnny Steele didn't mind it too much. He had never known any other type of work. He loved horses and the team of bays which he drove were always well-fed and carefully groomed, in direct contrast to the thousands of other, almost hairless skeletons of horses engaged in the business. He was kind to his horses and that made him a marked man.

He was tall, blond, broad of shoulder, and flat as to hips. In a land where a man's capacity for drink and his ability to use profanity were often taken as a gauge

THE VALLEY OF OIL

of his true worth, John Washington Steele was a partial exception. He was not given to drink, but he did possess an amazing knowledge of profanity which he used, however, sparingly but most appropriately.

Late in March of 1864 he tooled his tired team along the rough, twisting muddy trail on the west bank of Oil Creek. The sun had set and the air was chilly. He thought longingly of a hot supper to be shared with Eleanor, his wife, and his Aunt Sarah McClintock. Steak and fried potatoes—maybe a raisin pie . . .

He turned the weary horses into the abrupt, steep lane that climbed toward the old farmhouse on the hill. The team quickened their pace, for they wanted their oats and hay. Through the dusk he noticed a group of people in the yard. "Must have company," he thought as the team wheeled into the barnyard and came to a stop.

Out of the dusk Eleanor came running, her arms outstretched and crying in a voice filled with grief and anxiety, "Oh Johnny, I'm so glad you're here! Aunt Sarah burned herself something terrible and the doctor says she can't live!"

Stunned by this suddenly tragic news, the big blond youth stood with jaw dropped, in open-mouthed incomprehension. He worshipped his Aunt Sarah. She and Culbertson McClintock had adopted him when he was just a baby, had raised him as their own son. Aunt Sarah had always been good to him—that was a thing he would always remember. He could forget that the

COAL OIL JOHNNY

old woman's goodness had sometimes been unpleasant and uncomfortable. He remembered that she had been firm, but always kindly.

His arm was around Eleanor as they stumbled through the darkness and into the strangely hushed and dimly lighted house. The group of neighbors parted and let them pass into the bedroom. Johnny Steele shuddered as he gazed down at the inert, heavily bandaged form on the bed. Sarah McClintock never regained consciousness and she died the next day.

Vaguely, Johnny knew that his aunt was worth considerable money. The McClintock wells had been famous for their productiveness. One well alone produced at the rate of 1,200 barrels of oil a day. Oil was selling for \$9.87 a barrel. One-eighth of this price came to his aunt, a widow, as a royalty.

She had believed in a philosophy of hard work. She had allowed her nephew only normal wages for his daily work. That she had large sums of money deposited in banks, was common knowledge. He also knew that some money was kept in a little iron safe in the parlor. Neither he nor Eleanor, however, had any idea of the amount of Aunt Sarah's savings. She had often been heard to remark ruefully that Johnny had no head for figures. Perhaps this was why she had never taken him into her confidence in financial affairs.

The day after the funeral, the old house seemed strangely empty and lonely. Johnny and Eleanor stood in the chilly parlor, gazing curiously at the locked iron

THE VALLEY OF OIL

safe in the corner. Eleanor reached out a hand and adjusted the lace "tidy" on the top of the safe. "I wonder what's in it," she whispered. "Johnny, I'm kind of frightened, thinking about it."

He patted her plump shoulder affectionately. "We will have to wait until Lawyer Blakestone comes up from Franklin," he said quietly. "Poor Aunt Sarah! She never did have much fun out of life, did she? Only thing she spent any money for in years was that new-fangled kitchen stove. And it blew up when she tried to start it with a pail of crude oil, and burned her to death. If she did have much money, it didn't do her much good, Eleanor."

Eventually the old lawyer came. He knew the combination of the safe. He was short, fat, elderly and possessed of a studied formality that Johnny found oppressive.

He opened the little safe, whereupon it disgorged a great pile of greenbacks, a sack of gold coins and a packet of documents, including the last will and testament of Sarah McClintock.

There was no stove in the parlor, so they carried these items to the warmth of the kitchen and piled them on a table. William Blakestone called for pen and ink. He adjusted his glasses deliberately, coughed and slowly started to count the money, Johnny and Eleanor checking the count. At long last the job was done. The old man was puffing a little in excitement and his hand shook as he scratched down the final total.

COAL OIL JOHNNY

"Young man, there's over \$200,000 on that table," he said huskily and impressively. "That's a great deal of money, even in these days when men are making and losing fortunes overnight in this oil business."

Johnny Steele was speechless. Never before had he seen so much money. Blakestone's finger tapped the envelope which contained the will. "This will have to be opened and read before witnesses," he informed them. "Come to Franklin tomorrow afternoon and the will shall be read and probated according to law. At that time I will give you a precise and full account of the extent of the estate and we will execute the necessary formalities."

He gathered up the money, bank books and other papers, made them into a neat bundle, walked with dignity through the house, climbed into his buggy, and drove sharply off. Johnny had gone out to untie the horse. Still numb with astonishment, plagued with wild and curious dreams, he stood in the yard a long time, gazing sightlessly across the sea of derricks below. When he came back into the house, he found Eleanor sobbing quietly to herself. He didn't question her but stood at the window, staring out and far away. When Eleanor raised a tear-stained face to look at him and noted the queer, abstracted look on his face, she sobbed anew. For the first time in his life, she had to remind him in her gentle way that evening, that it was long past time for the feeding of the horses . . .

THE VALLEY OF OIL

William Blakestone's office was oppressive with dark, heavy desks and tables strewn with impressive appearing legal documents. The walls were lined with rows of calf-bound legal volumes. The lawyer greeted Eleanor and Johnny affably, called in two clerks to act as witnesses. Eleanor Steele sat quietly. There were dark circles, bespeaking a sleepless night, under her clear brown eyes. Johnny Steele was uncomfortable in his decent black suit and a new pair of boots, still stiff and uncomfortable.

The will was read. It was a brief, clear document. It left the entire estate of Sarah McClintock to John Washington Steele.

"Mister Steele, it's a very large estate," Blakestone commented solemnly, joining the tips of his fingers together and peering over the rims of his glasses. "We have here in hand a little over \$200,000 in cash. In addition, there are bank books showing deposits in excess of \$100,000. The farm is under lease, as you know. The wells are fine producers and the estate receives one-eighth of all oil raised, as a royalty. The daily income is in the neighborhood of \$2,800 a day."

He paused impressively and looked closely at Johnny Steele and his worried young wife. Steele was not yet of legal age. William Blakestone pointed this out, explained very carefully that full title to the estate would come only when the young man reached his majority.

"In the meantime, perhaps you will need some

COAL OIL JOHNNY

money. You have only to command me as to the sum you will need. As executor of the estate I am custodian of the funds, but when you are twenty-one I will give you an exact accounting and turn over the entire estate to you. How much money will you need today, sir?"

Steele squirmed in his chair in embarrassment. He leaned over and whispered to Eleanor and then said huskily: "Could I have as much as \$30, Mr. Blakestone? Eleanor needs a new dress and we'd like to get a new cradle for the baby. And there's a feed bill I'd like to square up. Is it too much to ask for?"

Blakestone chuckled. "Bless you, no," he said. "I'm glad to see you so reasonable, young man. My advice to you is to invest most of this money in Government bonds and live on the interest they will earn. You are a rich man. Be prudent with your wealth and you will always remain rich and independent."

It was sound advice. Johnny Steele didn't take it. "Aunt Sarah had all this money and she never had any real enjoyment out of it," he kept repeating to Eleanor in the next few months. She was worried. Johnny was restless. There was a strange look in his eyes, a recklessness in his actions which she had never before noticed.

The day he was twenty-one, John Steele, wearing the decent black suit and the uncomfortable boots, marched into William Blakestone's office.

He was alone. The formalities were completed with a decorous deliberation which Johnny found madden-

THE VALLEY OF OIL

ing. His head was in a whirl from listening to figures. His hand was cramped from signing papers he hadn't stopped to read. All he knew was that a fortune was being transferred to him. He was somewhat frightened at the ceremony and the evident importance of the affair. At last it was over. He was given sole and undisputed custody over an estate of more than \$300,000 and with a daily income of about \$2,800. He sat very straight in his chair, a tall, handsome lad, impatiently listening to Blakestone's advice and his flow of sound words of counsel.

As he left he said somewhat awkwardly, "I see by the papers that money is being raised to put a monument in the park in memory of the men who lost their lives in the war. I think it's a good idea and I'd like to help out a little. I want to give \$2,800 towards the fund. Will you take care of it for me?"

Blakestone agreed. It was Johnny Steele's first experience in spending and it sent a little glow through his strong young body, gave him a new feeling of courage and importance.

"You see, Aunt Sarah never enjoyed her money none," he said as he shook hands with Blakestone. "I kind of figure that money ain't no use unless it brings you some kind of enjoyment and pleasure."

He was dimly aware that he was on a train, bound for Philadelphia. Behind was Pittsburgh, a city he had learned to hate in the few lonely weeks he had spent

COAL OIL JOHNNY

there in a cheap hotel. Pittsburgh had been cold, unfriendly, unsociable. He was going to a bigger city, one where it was said that people were friendly and hospitable. On the seat beside him were two bottles of brandy. One was nearly empty. He pulled the cork, took a deep drink and tried lazily and foggily to remember what had happened in the last few months.

His aunt had been right; he had no head for figures. With a lot of brandy under his belt, he couldn't figure even a little bit. Now that he was again slightly muddled, he found it impossible to remember certain things clearly. Dimly he remembered that Horace Cullom, the fat, jolly real-estate man from Meadville, had sold him some property in the city. How much he had spent, he didn't know. Actually, it amounted to \$67,000. In addition, he had signed a paper promising to pay \$5,000 a month for some more property. He didn't remember for a few minutes where Eleanor and the baby were living. Eleanor had been to Philadelphia to see a doctor. She wasn't well. Right now he did remember that she was back living with her parents. He had given her some money before he started—not much, but enough to get along with, he reckoned. He had discovered that he had signed a lot of papers and everytime that happened it cost him money. Plenty of money left and nothing to worry about, he consoled himself.

He took another drink and brooded awhile. He wasn't having so much fun with Aunt Sarah's money, he reflected bitterly. Maybe having a lot of money

THE VALLEY OF OIL

wasn't fun after all. Well, he'd find out after he got to Philadelphia.

In those days Philadelphia wasn't the quiet, sleepy city it is commonly pictured as being today. Yet there were times when purely local news items were scarce. A reporter, one Chester Cassells, strolled hopefully into the Girard House, one of the best known hotels in the city, looking for news. The manager gave him a red-hot tip.

"We have a most amazing guest," he informed the reporter. "He's an oil man from up-State, the biggest spender we've ever seen. Does things in a big way, tips with \$20 gold pieces—that's a fact! His name is Steele and he seems to be rolling in money."

Cassells was a thin little man with a twinkling eye and a memorable thirst for alcohol and news. He knocked at the suite of rooms occupied by John W. Steele. Frankly he explained to Steele that he wanted to meet him, to know more about his career and his plans. He and Johnny were kindred spirits in sharing a mutual liking for alcohol in assorted forms. Johnny had been on a brandy diet for some time. Cassells introduced him to champagne and vintage wines. The very first night they met, they became friends. Cassells was charming, well-informed and witty. Steele was lonely, anxious for companionship. Over a stirrup cup, Chet slapped his new friend on the back and exclaimed, "I'll put you in the papers, m'lad! On the front page, too. Make you famous, I will."

COAL OIL JOHNNY

It was no idle boast, for Cassells' paper the next day carried a story that made all Philadelphia laugh. The story was a lurid one, tinged with some elements of the truth. It painted a picture of a lonely and personable young oil millionaire, pining for friends and sociability. Cassells said that the young man kept in his room or on his person as much as \$100,000 in spending money and that his oil wells were producing revenue faster than it could be spent. "Out of Petrolia to Philadelphia, comes this 'Coal Oil Johnny' to savor our fleshpots, to drink deep of the culture of this historic city," the narrative concluded.

Johnny wasn't offended. The name "Coal Oil Johnny" rather pleased him. It caught the public fancy. The publicity pleased Johnny. The hotel employees treated him with renewed respect. He became, in a few days, a well-known figure around the town. His clothes were now tailored and he wore them with a natural grace. He was handsome, cheerful, made friends readily. He smoked imported Havana cigars, drank heavily of champagne and costly wines. Cassells introduced him to many famous and infamous persons, urged him to greater excesses out of sheer deviltry and a desire for news.

Steele formed the habit of strolling down Broad Street with \$10 bills stuck in the buttonholes of his coat and thought it a fine joke when newsboys snatched them away.

He never lit cigars with \$100 bills, as legend has it,

THE VALLEY OF OIL

but he did other and equally silly things. He bought a carriage, a gaudy, glistening affair in blue, green, gilt, and flaming scarlet. On the doors he had painted a large and fantastic coat of arms, a design showing oil derricks and tanks on a field of blue and gold. That too, made news. It was Cassells' idea.

One day he wanted a cab. It was raining and he was unsuccessful until he flashed \$1,000 in currency and bought a cab outright. He then hired the driver to take him to the Girard House. At the curb, he graciously bowed to the amazed driver, made him a present of the outfit. Then, in great dignity, he swayed through the door to the lobby, followed by a volley of inarticulate but sincere thanks from the driver-owner.

Another time he and some friends were in the Continental Hotel, just across the street from the Girard House, doing some early morning drinking. Some dispute arose and the clerk was insolent.

Steele, befuddled but arrogant, tossed a \$20 bill to a bell boy and asked to see the manager. When that gentleman arrived, Steele demanded that the offensive clerk be fired. The manager refused. Steele produced a great roll of bills and tried to buy the hotel. The offer was also curtly refused. Then the manager's sense of humor came to his rescue and he told the young man that he would rent him the hotel and all of its facilities for one day if he so desired. The price was \$8,000. To the astonishment of the manager, Steele peeled eight \$1,000 bills from his roll and took up the offer.

COAL OIL JOHNNY

Next morning a startled Philadelphia discovered a large sign in front of the Continental Hotel. "Open House Today: Everything Free—All Are Welcome," the sign shouted.



People came to investigate, found that it was true. "Coal Oil Johnny," immaculately and perfectly clad, was in the lobby greeting all and sundry, urging them to eat, drink, and be merry at his expense. He had just fired the offending clerk and he felt very cheerful and

THE VALLEY OF OIL

jovial about it. It was a memorable day and night for thousands who took advantage of it. The hotel manager was frantic before the last guest was pushed, pulled or carried out of the premises at midnight. More news for Cassells!

One day Johnny Steele tired of Philadelphia. He needed something more in the way of fun and excitement. He joined the minstrel troupe of Gaylord and Skiff, became the "angel" of the project. He travelled with them, bought a special train for the purpose, gave expensive dinners to the cast. He loved the lively music, the atmosphere of excitement. He bought \$5,000 worth of wood cuts to advertise the show. At times he would even lead the daily parade through the streets of the town where a performance was to be given at night. People smiled at the tall, handsome, beautifully groomed young man prancing ahead of the band, swaying slightly perhaps, but very evidently enjoying himself.

Johnny was never wholly sober in these days, seldom really happy. There were papers to be signed when he was very drunk. Every time he signed a document, it seemed to take a slice of the rapidly diminishing fortune.

He drank steadily. He gambled often. It was a memorable, marathon binge.

In 1866 the curtain was rung down. He was broke. He had carfare to get him to Kansas City where the Gaylord and Skiff minstrels were showing. They took

COAL OIL JOHNNY

him in, made some measure of return for his past generosity, gave him a job as ticket seller. He was with them for nearly a year, trying his level best alternately to whip or to satisfy his craving for alcohol.

In 1867 he came back to the oil fields. At Dempseytown he found Eleanor at the home of her parents. He was no longer "Coal Oil Johnny." Again he was plain John Steele. His face was lined, his clothes were shabby and didn't fit well on his gaunt frame. Yet there was about him an air of relief, as if he had been released from some evil spell.

If he was repentant, he didn't show it. Eleanor was still plump but there was a tragic look in her eyes. She smiled her forgiveness. "Well, Eleanor, it's all over and I'm glad the money is gone," he said simply. "There was no happiness in Aunt Sarah's money. I want to start all over again. Are you willing to do that?"

She was—and they did. He stopped drinking, joined the church, and got a job at \$80 a month. Within a few years he went to Pittsburgh, attended a business college, and acquired, at long last, a head for figures. Aunt Sarah would have been proud of Johnny. He died in 1920 at Fork Crook, Nebraska, a respectable and well-liked citizen who owned his home and was the proud possessor of a small savings account, evidence of his frugality and industry.

Many tales have been spun in the oil fields of Johnny Steele's marathon spending spree. Steele told a few him-

THE VALLEY OF OIL

the education of dozens of boys and encouraged them to become useful citizens.

He served two years in the Pennsylvania legislature. Here he was thrown in contact with shrewd, hard-bitten, unscrupulous politicians, members of political gangs from Pittsburgh and Philadelphia, gentlemen who put party lines above service. Henry R. Rouse proved to be an able opponent, honest and above-board, and unexpectedly capable of matching wits with any of them. His legislative career was as clean as the proverbial hound's tooth.

In the year the Drake well was drilled, Henry R. Rouse turned to the oil industry as a challenge. He had capital, high courage, great common sense, a soaring ambition, and boundless energy. In 1859, with two partners, he leased the two Buchanan farms on the east bank of Oil Creek, the present site of the village of Rouseville. He drilled, according to the records, the third artesian oil well. It was successful. Wealth flowed to Henry Rouse as naturally as water flows down hill. He lived close to his oil operations, gave to them all of his time. He was unmarried and the drilling of wells and the making of money was a pleasant obsession, a thing in which he took a great private joy. He lived modestly, continued to be as generous as of yore. No man pinched by poverty or squeezed by misfortune ever came to him and left empty-handed. If he worked hard, he enjoyed it, and he worked just as hard to help create wealth for others as he did for himself.

TRIAL BY FIRE

Men fought to join his enterprises. To be known as a partner in some Rouse oil venture set a man apart, for Rouse was careful as to his various partnerships and demanded from each of the men with whom he worked complete integrity.

His success was at high tide on the night of April 17, 1861. He had been through a busy day, having risen at daybreak to visit some of his oil properties. After supper at Anthony's Hotel, he was relaxing with George Dimick, his confidential clerk and cashier, and two friends, discussing the fall of Fort Sumter which had occurred a few days before. As the men talked they heard a great roar from the outside and a man came rushing in. He shouted excitedly that the new well being drilled had "come in" an uncontrollable gusher and that barrels and tankage were needed immediately to salvage the oil.

The men rushed out. Dimick hurried down the street, trying to corral every available team to haul barrels to the well, to hire men with shovels to dig trenches. His industry and thoughtfulness saved his life.

Hundreds gathered at the site of the well, which was belching out a steady, six-inch stream of fresh oil and water that slowly spread over the low land. It was a warm, misty evening and the air was filled with gas fumes and the unforgettable smell of fresh oil.

Dimick started for the scene, noted that Rouse was standing about twenty feet from the derrick. There was a flash, an explosion, and suddenly a solid acre of

THE VALLEY OF OIL

ground was afire and the derrick itself a vast torch. A hundred people were trapped in the inferno. Thirteen were burned to death, dozens were seriously burned in escaping. Rouse was caught in the middle of the holocaust. Dodging desperately, running toward a possible escape avenue, he fell and the flames roared hungrily across his body. He came to his feet, his clothes blazing and again ran to safety. As he ran, he fumbled in his pockets, pulled out a heavy wallet stuffed with bills, and a sheaf of papers. He hurled them to safety through a solid wall of flame just as he fell again. A sudden wind parted the flames and two men rushed in, picked him up and carried him away.

From the first it was evident that he was fatally burned. He was carried to the shanty of an oil field worker, tenderly placed in bed. He uttered no complaint, yet he must have suffered agonies of pain. From outside, there was the roar and crackle of flames, the excited shouts of men trying to extinguish the fire, the screams and cries of those who had been badly burned. The heat beat into the little shanty and the air was filled with ugly odors. Overhead was a growing canopy of black smoke.

They fed water into his charred lips with a spoon and he thanked them, called for Dimick. In the following four hours, slowly, precisely, thoughtfully, Henry R. Rouse dictated his last will and testament. It has long been held to be one of the most clearly stated of wills, yet one of the most involved. That evening, on a bed

TRIAL BY FIRE

of terrible pain, he disposed of an estate of well over a million dollars.

The bulk of the estate he willed to the Commissioners of Warren County. He specified that the interest of the funds be used in two ways; one-half to improve the public roads of the county, the balance to be used to improve the condition of the poor and needy, as the Commissioners saw fit.

In the will, he named as beneficiaries many of his workers, giving to them generously. At intervals he sipped water from a spoon, continued his dictation clearly and concisely. He remembered one man in particular. This man had given a note to Rouse and one of his partners for a sizable sum. Rouse remarked that the man was having a run of hard luck and he desired that his will should provide for the cancellation of the obligation. He likewise made generous provision for the two men who had carried him from the fire. When the will was written, he listened carefully as it was read to him, managed weakly to affix his signature. Dictating that will was a great feat of courage and stoicism. Not once did he mention his pain, the searing agony that must have gripped his entire body.

A doctor came and frankly admitted that the case was hopeless. A minister approached and attempted to administer consolation. Through his swollen, charred lips, Rouse replied, "My account is made up. If I am a debtor, it would be cowardly to ask for credit now. I do not care to discuss the matter."

THE VALLEY OF OIL

He again called for Dimick, gave him detailed instructions as to the conducting of his funeral, asked that there be no display, that no sermon be preached, and that his body be laid beside that of his mother, at Westfield, New York, where he was born.

In the last and fifth hour after the fatal burns, he became unconscious. Thus died a gallant man, a man of extreme courage.

Warren County, Pennsylvania, still receives a bounty from the Rouse estate; it is blessed with excellent highways and its poor and needy receive treatment and relief to an extent that would please their benefactor.

Henry R. Rouse was engaged in the oil business less than two years. He was only thirty-seven years old at the time of his fatal accident.

Man of Mystery

People instinctively liked, admired and respected this man. He was of medium height, his eyes were black and expressive; his hair was worn somewhat long and always carefully brushed and his black moustache was groomed with equal care. Always quietly but richly dressed, he was invariably impeccable in a sort of casual, effortless way. He was handsome in the considered opinion of both men and women.

It was his voice, however, that most people remembered. That, and his little acts of kindness and unexpected courtesy. His voice was low but it possessed carrying power. It was rich, full, well-modulated. He had a knack of telling commonplace things in a way that made them momentarily of tremendous importance.

He came to Franklin, Pennsylvania, in April of 1864.

THE VALLEY OF OIL

Franklin, at this time, was one of the leading boom oil towns. The town itself and the area surrounding it was filled with oil derricks and the town was oil-crazy. Fortunes were being made and lost in the proverbial twinkling of an eye. New oil fields were being opened, old ones were dying out. The city was crowded; hotels were filled, the streets were lanes of deep mud, flanked by busy stores built with "false fronts." The sidewalks were thronged with a curious crowd, men in fine broadcloth and polished boots, oil men with clothing splashed with sand pumpings and spotted with grease and oil, men who strolled along without apparently a care, men weary from long hours of hard work, harried by personal worries. Gamblers, promoters, farmers, supply people, real estate dealers, crooks, women who were members in good standing of the sorority of the night, housewives, and sightseers all mingled together cheerfully, intent on their various personal affairs.

Down this street strolled the stranger, appraising all he saw. Men and women of all walks of life turned to look at him. There was something distinctive and distinguished about the easy grace of his stride and his urbane air of casualness.

Of one of the bystanders he politely inquired the way to the modest real estate office of Joseph H. Simonds, a local real estate dealer and oil producer. Simonds greeted him joyfully.

"John, I'm delighted to see you!" he exclaimed, pumping his visitor's hand heartily. "Have you accepted

MAN OF MYSTERY

my invitation to come here and settle down and be an oil man?"

The impressive stranger seated himself easily, lighted a thin brown Havana cigar, and looked at the other through a haze of blue smoke.

"That just depends," he said with a smile. "I haven't too much money, you see. My profession is not too highly paid. I have never been able to save much money, but I have persuaded three of my friends to invest some money in the oil business, if I approve. Between us—Jack Ellsler, Tom Mears, George Paunell and myself—we have \$5,000. I suppose that seems a pretty insignificant sum to you oil men accustomed to think in millions?"

Joseph Simonds smiled. "John, not all of the oil business is conducted in millions. Matter of fact, there have been some pretty successful properties developed on very modest sums. Let's get you settled, however, before we start to talk business."

At the advice of Simonds, the stranger rented rooms at the home of Mrs. Sarah Webber who occupied a large house located on the corner of Buffalo and 13th Streets. Mrs. Webber immediately liked the new roomer. He was neat, polite, unobtrusive.

He furnished his rooms with good pieces, hung some fine paintings on the walls, and received several express shipments of good books. His closets were filled with expensive clothing.

In the hustle and bustle of new developments, scant

THE VALLEY OF OIL

attention was paid to the formation of a new oil company of modest capitalization, the Dramatic Oil Company. The head of the venture was our stranger. Joe Simonds was one of the partners.

The new company purchased a block of land on the Fuller Farm, close to town and fronting on the Allegheny River. Their first well was a modest success. It started to produce at the rate of twenty barrels a day. Two additional wells were drilled with equal success. Oil was selling at \$9.87 a barrel at the time. Sixty barrels of oil per day meant that the company had a gross income of about \$600 a day. In all respects the new venture was a thorough but not a sensational success.

The stranger was no longer a stranger. He had become well known and was liked. The bank respected him. He paid his bills promptly, treated his employees generously, showed a genuine interest in his business venture and gave it close attention.

Socially, he was always in demand. He had a grace, a certain suavity seldom encountered in the oil fields. He was talented in so many respects—a good and interesting conversationalist, a fine dancer. With older women, with elderly men, he had a way that was both courteous and deferential.

When sufficiently persuaded, he would recite, however reluctantly, extracts from plays. His voice was moving and impressive, as he recreated some character from the stage. Once he was launched into a characterization, he seemed to enjoy himself tremendously

MAN OF MYSTERY

and accepted the applause of his friends calmly, as a just reward.

Once a group of his men friends were gathered in his rooms at the Webber home. It was a stag party; the men had been swapping stories, small talk, and drinking moderately of their host's brandy. The room was filled with the cheerful hum of conversation and gray-blue smoke from fragrant Havanas. Somehow the talk turned to religion, even while they avoided the two things they knew their host never discussed—the war, and the state of politics. Freely expressing their religious beliefs, there was even a little good-natured banter between Franklin Pierce Beggs, a solid Presbyterian and Patrick McCann, a Roman Catholic, about the relative merits of their two theologies.

Someone asked the host regarding his religious beliefs. He smiled somewhat forlornly, as he refilled a guest's glass with brandy. "I have no settled religious beliefs," he admitted frankly. "Sometimes I suspect I am an unbeliever. Yet, there is one part of the Bible that has always impressed me tremendously with its dignity, its appeal, its honesty, its promise."

Standing in a corner of the room, as though to separate himself from the others, he recited "The Sermon on the Mount." Never from any pulpit had any member of the small audience heard it done with so much deep feeling, with greater solemnity, power, and expression.

He concluded in a voice that shook with emotion as

THE VALLEY OF OIL

it had gained in gentle resonance: "But he that heareth, and doeth not, is like a man that without a foundation built an house upon the earth; against which the stream did beat vehemently, and immediately it fell; and the ruin of that house was great."

In less than a year, the members of the small group were to recall the majesty of the voice and the message it delivered; and the final passage then took on a new and dramatic finality: "and the ruin of that house was great."

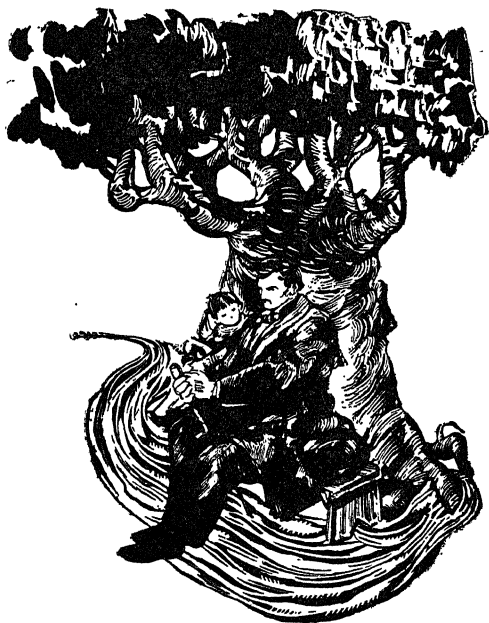
At times he left Franklin for a few days, always returning in good spirits. Yet, there were times when the man was moody, when he walked unseeing through the streets, nights when Mrs. Webber heard him pacing ceaselessly up and down his rooms.

He was a great walker. With a friend, Bob Brigham, he tramped the hills and valley around Franklin until miles and miles of the lush terrain became familiar ground to these two boon companions. They were interested in common things: poetry, the stage, literature.

He had a temper, this strange man, a violent one when it was aroused. He soundly thrashed a husky teamster who was needlessly and cruelly beating a horse. The teamster weighed fifty pounds more than his slender opponent, but he couldn't box and, as a result, he was savagely mauled by the taunting, smiling avenger of the horse's ills. It was not a nice exhibition, but the crowd agreed that the teamster was badly in need of a beating.

MAN OF MYSTERY

Children adored him. Little Joe Watson, the son of a neighbor of Mrs. Webber's, was one of his favorites. Every morning the little lad waited for a familiar whistle. It was a signal that his friend was coming and he would drop whatever he was doing to rush out and



meet him. Always there was a romp and always there was a story to be told. The handsome man would sit on the steps with little Joe on his lap and spin wondrous tales that entranced and fascinated the child. The man delighted in his audience, changed his voice to fit the roles of animals, and gave every tale a verity that made

THE VALLEY OF OIL

them sound real. When he returned to town after his various trips, he always brought a small present for Joe. Their daily meeting became a ritual welcomed by both of them—a gay, cheerful interlude of a sunny morning.

The handsome storyteller had many friends among prominent oil men. Women were especially attracted to him, yet he showed no evidence of favoring one above the others, giving to each of them the same respectful, courteous, impersonal attention. He was aloof, yet cordial and more than one oil heiress was puzzled by this unusual attitude.

Some say that he left the rooms in Mrs. Webber's house in October of 1864. There were others who swore on the Book that he was there early in April of 1865, among these being Mrs. Webber and several of his intimate friends. He was cheerful and carefully polite as always when he came downstairs carrying a small bag and informed Mrs. Webber that he would be away for a few days. His affairs were in a prosperous condition; his balance at the bank was a substantial one. He had several unfinished business deals on the fire. His wells were producing profitably. He was cheerful as he boarded the train.

On the night of April the fourteenth, 1865, Franklin, and the rest of the world, was shocked beyond expression at the startling news that President Lincoln had been shot by John Wilkes Booth.

Friends in Franklin calmly or wildly, according to

MAN OF MYSTERY

their temperament, assumed the account to be wholly and entirely in error as to the identity of the President's assailant. It was simply incredible and impossible, they claimed, that John Wilkes Booth, gentleman and oil producer, could become a killer. Yet, it was the man from Franklin who had fired the fatal shot. But why, no one could explain.

Oil field legends are virile and long-lived. Two still survive in regard to Booth. One is that on the night of April 14, a severe thunderstorm swept the area around Franklin, and that lightning, like the wrath of an outraged and angry God, struck the stock tanks of the Booth oil property and burned them to the ground. It's a nice legend and an interesting one. Unfortunately, however, there is no supporting evidence.

There is also another legend, likewise in doubt. According to this one, as soon as it was known that Booth had been living in Franklin, a swarm of Federal detectives descended on the place, roughly invaded the quiet premises on the corner of Buffalo and 13th Streets.

In the rooms formerly occupied by Booth, they found his ledgers in order, his opened mail neatly stacked, nothing to indicate that when he left he had no intention of returning. There was but one item of sinister import in the rooms. It is said there was found scratched on a windowpane, apparently by a diamond, a message that clearly indicated premeditation: "A. Lincoln, died April 14, 1865."

It is claimed that the pane of glass was removed to be

THE VALLEY OF OIL

taken back to Washington as evidence. As the detective started down the stairs, he stumbled and fell to the bottom, smashing the incriminating pane of glass to atoms.

Again, it is a legend that lacks the foundation of any credible evidence. It is still believed and told in the oil fields, however.

What happened to the mind of John Wilkes Booth in the year he spent in Franklin, no one will ever know. Comb all of the evidence given by his friends and associates and you will be unable to produce any evidence that Booth planned or plotted a murder. True, he refused to discuss the war; true, he detested political arguments. But many others also found these highly controversial subjects distasteful. According to the testimony of those who knew him best, he lived a normal, cheerful life. And they point to the prosperous condition of his affairs, the fact that he had new ventures started, as evidence that this was no planned or premeditated act.

The property was sold by his heirs in 1869. It was still a valuable property and commanded a fair selling price.

The enigma of John Wilkes Booth will always remain an enigma. He is reported to have said as he was dying, "I did what I thought best."

Neither the world nor the people in Franklin ever will or ever did understand him.

Most of all, little Joe Watson never understood what happened to his friend of the merry whistle, that wonderful teller of tales.

The Arsonists

Titusville has suffered enough from incendiaries. The town is full of vagrants, harlots and pimps. Let them be cleaned out *en masse*. The suspicious characters arrested last night should be first dealt with. If shown that they had any complicity in these acts of incendiarism they should be hanged. We shall have no more incendiary fires after one or two desperate characters have been LYNCHED

*P*lain speaking, this, on the part of the editor of the *Titusville Herald*, under the date of January 22, 1866. The night before, an entire block of wooden buildings in the center of the town had burned to the ground. The property loss was high but, by good fortune, there had been no deaths. This fire had been only one of many. As the editor penned his impassioned editorial, the embers of the fire were still smoking. If the

THE VALLEY OF OIL

editor was annoyed and angry, he had reason to be. It was what might justly be termed righteous indignation, a feeling shared by hundreds of citizens of the booming, growing, busy oil town.

Each of the fires had a curiously suspicious background. Each, it was evident, had been set maliciously. The city, as the editor had stated in his sizzling editorial, was filled with undesirables, the flotsam and jetsam incident to boom times. Some of these strangers had undoubtedly been responsible for every fire.

Boom towns were collections of closely-built stores, warehouses, hotels, bars, and homes. They were constructed of wood, dry as tinder, requiring only the touch of a match to leap into a roaring, devastating fire. Fire-fighting equipment in the growing town had not kept pace with physical expansion. Nightly its citizens went to bed in a nervous dread of fire.



THE ARSONISTS

The editorial brought unexpected results. At nine in the morning of the day it was published, the Board of Trade rooms in the Fletcher Block were crowded with influential, angry citizens, loudly and vehemently demanding an immediate and drastic civic clean-up.

Even while the citizens were meeting, another group braved a blizzard and erected a sinister gibbet on the site of the burned buildings, a mute but tangible threat to the arsonists.

The citizens' meeting was called to order and the situation was discussed with more heat than had ever before been shown at any local public gathering. A clarion call was issued for one-hundred courageous men to help clean up the town. Within an hour a sufficient number of volunteers had appeared and were solemnly enrolled. A committee of thirty was named to direct the clean-up campaign.

The committee adjourned to Corinthian Hall, where the men arrested the previous evening were brought before it for examination. From Corinthian Hall, the assembled men who had been arrested could look out of the windows and view the gibbet standing starkly and bleakly on the ruins of the fire.

The leader of the gang was a surly individual, a man of size, barrel-chested, brutal in appearance, but possessed of considerable education. He was a "wrong-un" of most unsavory reputation. An ex-prize-fighter turned brothel-keeper and hailing from Buffalo, his real name was Robert Vance. In the oil fields, however, he

THE VALLEY OF OIL

was known as "Stonehouse Jack." He is probably best remembered for a prize-fight he had at Pithole City with the infamous Ben Hagan. He and Hagan had feuded ever since the fight and it was rumored that Hagan had even taken a shot at him, chasing him from the precincts of Pithole.

He listened to the evidence quietly. When they tried to examine him, he grinned impudently at his interrogators and reminded them that they were not a court of law and, therefore, had no legal right to question him or his associates. Surprisingly enough, his voice was low and cultured, his phraseology eminently correct.

In a manner of speaking, "Stonehouse Jack" had properly appraised the situation. The committee was not a legal body, qualified to deal out justice as they saw fit. But, right or wrong, the committee reminded the prisoner that it proposed to function. Further, the prisoner was warned that if he interrupted the proceedings he would be bashed on the noggin with a blunt instrument of size, swung with extreme zest.

The committee heard the evidence, weighed it solemnly. While no direct evidence was submitted showing that any member of the group of prisoners had been responsible for the fire, no one stepped forward to vouch for the sterling character of any of the prisoners. Indeed, many voluntarily gave evidence under oath that collectively and individually the men were generally known as drunkards, thieves, liars, pimps, loiterers, and crooked gamblers.

THE ARSONISTS

Sentence was pronounced and rigidly carried out. The prisoners were to leave town that night. If they ever returned they would be summarily hung, they were informed, without benefit of trial. That night, escorted by the police and a mob of seething citizens, they were placed on a train for Buffalo. As the train pulled out of the station, "Stonehouse Jack" thumbed a swollen nose as a parting gesture of defiance.

Two days later, the editor of the *Titusville Herald* received a letter from Buffalo, signed by "Stonehouse Jack." Being a man with a nice sense of humor, he published the letter in his newspaper:

I avail myself of this my first leisure moment since my return to Buffalo to convey to your paper my heartfelt thanks to the citizens of Titusville for the very hospitable manner in which I was received and entertained during my late visit to your city.

To the committee of vigilance who so kindly relieved me of every expense during my stay and furnished me with free transportation to Buffalo and to citizens generally who joined in the procession to the cars on my departure, my thanks are especially due. As also to those persons (their names, I regret, being unknown to me) who, in the goodness of their hearts made their arrangements to raise me to a more "elevated" position than I desire to occupy.

In conclusion I wish to say, Messrs. Editors, if you or any of the persons above referred to, visit this precious locality, I assure you, you and they will receive a warm reception upon making themselves known to

Yours Respectfully
"Stonehouse Jack."

Robbery on a High Scale

The story of how John Benninghoff, an ardent dry, became the owner of a going brewery against his will and intention, is almost legendary in the oil fields. This, however, is only a paragraph in a story that contains almost fantastic angles.

John Benninghoff didn't trust banks. He had slaved to make his 240 acre farm earn a living for his family. It hadn't been easy. Only by the exercise of great frugality and excellent management had he been able to make the stony, hilly land pay. His meager savings went into a bank. The bank failed and he lost every penny he had so painfully saved. From that time on, he hated and distrusted banks. So great was his distrust that he refused to accept checks. He insisted on being paid in cold cash.

Up north, a few miles away, they had found oil on

ROBBERY ON A HIGH SCALE

other farms. Slowly but inexorably the golden flood swept down the Oil Creek Valley. Derricks notched the sky as far as the eye could reach. Many oil men tried to lease the Benninghoff Farm. At last John Benninghoff drove a hard bargain, as was his wont. He leased his land to oil producers on a royalty basis that would pay him fat returns if oil was discovered in paying quantities.

The stubborn acres may have been niggardly when it came to producing crops, but, when the drills probed beneath the surface, the oil sands were tapped and the acres produced an amazing abundance of oil. The Benninghoff family accumulated wealth at such a rate that John Benninghoff was at once delighted and deeply troubled.

He had stipulated that the royalties were to be paid in cash of the realm. Soon he had over \$500,000 on deposit in Pittsburgh, Philadelphia, and Titusville banks.

Still the money rolled in. New and bigger wells were being drilled on the farm. He bought two safes, one of which was of steel and equipped with a combination lock. The other safe was a bargain his thrifty soul could not resist. It was an ancient iron affair, locked by a simple key which he always carried in his pocket. It had been cheap; that had appealed to John Benninghoff.

The Benninghoff farmhouse was a bleak, unpainted house, perched on a hill overlooking Oil Creek and a veritable forest of oil derricks. At regular intervals to this house came the oil producers to pay Benninghoff his royalties. The queer, silent old man would meet

THE VALLEY OF OIL

them at the door, examine their statements carefully and then count the money they handed to him.

At his back would stand Henry Geiger, a giant with shifty eyes, fondling a hickory pick-handle. He was Benninghoff's bodyguard, a stolid, dumb German immigrant who was paid a niggardly wage for his work. There was another hired man, Cornelius Etheridge, but his job was to work on the farm. He was a small man who nourished a deep hate for Geiger and an active dislike for his employer.

Money didn't change the daily routine of the Benninghoff family. They rose at dawn. The scrubby acres not covered with oil derricks had to be cultivated. At 67, John Benninghoff was a gaunt, worried man. He had a great passion for work. It was his religion and he saw to it that every member of his family were worshippers, too. Money brought no comfort, no joy to the family.

The money accumulated in the two safes: gold, bills, and government bonds. Only John Benninghoff knew how much. Each spring, Mrs. Benninghoff, a squat, kindly woman, would take the bills and spread them on the grass in the sunshine where they might be cured of the mildew accumulated through the winter. Just inside the door, at such times, John Benninghoff would sit with a loaded shotgun across his ancient knees. Geiger would lounge watchfully in the grass with a pick-handle near him. His eyes would caress the money spread in the sun . . .

ROBBERY ON A HIGH SCALE

Men called Benninghoff a miser, which he was not. He was simply a cautious man at a time when bank failures were entirely too common. The fact that he kept large sums of money in the house had been common knowledge in the oil fields for years. That knowledge was to breed trouble, for it was heard and considered by men whose moral codes were not of the highest.

The night of January 16, 1868, was penetratingly cold. The Benninghoff family gathered in the kitchen, close to the kitchen range. It was the warmest room in the drafty, poorly-built house. They were all there, with the exception of the son, Joseph, who was at church services being held several miles distant from the farm.

There was a thundering, imperative knock on the kitchen door and voices were heard outside. Geiger jumped to his feet and opened the door. This was strictly against orders, Benninghoff later remembered. Several men, faces partially concealed by handkerchiefs, surged into the small room. They held menacing pistols in their hands and there was no doubt as to their intentions. Geiger, Etheridge, and the women meekly raised their hands; but not John Benninghoff.

"Geiger, do somesing!" he implored. The giant rolled his eyes, reached higher with his hands.

Benninghoff, with more courage than commonsense, lunged forward to attack the men, ignoring the fact

THE VALLEY OF OIL

that they were heavily armed. For a few moments he gave them a tough battle. The women screamed, but Etheridge and Geiger never moved. He was overpowered, not too gently, tied up and tossed on a bed. One of the men rifled his pockets and triumphantly held up the key to the iron safe. Leaving one man to guard the family, the men trooped noisily upstairs where the safe was located. John Benninghoff wondered how they knew the brass key was for the safe and how they knew the location of the safe. His angry eyes slanted to where Geiger stood impassively, looking straight ahead, avoiding that accusing glare.

From above there came a whoop of triumph and a babel of excited voices. Benninghoff winced and mumbled a curse through his bruised and bleeding lips. Soon the men trooped downstairs in a cheerful and profane mood, carrying pillowcases stuffed with gold, currency, and bonds. Benninghoff groaned in anguish.

The leader of the robbers, a tall, well-built man, grinned beneath his mask. "Looks like a pretty good haul," he admitted tersely. The men scattered through the other rooms of the house and discovered the steel safe, the one fitted with a combination lock. Benninghoff refused to give them the combination. One of the men was for torturing the information from the old man.

The leader shook his head. "We have done pretty well," he confessed. "We have enough to put us on Easy Street. No torturing of the old man, boys! I'm

ROBBERY ON A HIGH SCALE

hungry. Let's see what we can find to eat. Watch out for the Benninghoff boy; if he comes, grab him quick. We can't afford to have an alarm sounded for hours after we leave."

One of the men ransacked the pantry, returned with four dried-apple pies, a pastry in which Mrs. Benninghoff excelled. He also brought out a crock of fresh milk. The men ate hungrily and with evident relish. The leader politely complimented Mrs. Benninghoff on her culinary skill and the frightened woman simpered briefly. She always remembered that compliment and secretly appreciated those words of praise, the first of which she had ever received.

When they finished eating, the robbers bound the family and hired help, with the exception of Geiger. A rope was placed around his neck and he was led outside by two of the men. Soon they returned with him, tied him up securely. The leader apologized for the fact that it was necessary for them to take the family driving horse and sleigh.

"We must not be followed!" the leader warned. "It will mean death to anyone who tries it."

The bonds of the victims were carefully inspected. The men, under instructions from their leader, put more wood in the stove, so the family might not suffer from cold. They bade the family a courteous farewell and soon the sound of galloping horses faded.

A niece of Mrs. Benninghoff managed to slip her bonds just as Joseph Benninghoff returned from church.

THE VALLEY OF OIL

John Benninghoff was almost incoherent with rage and a sense of loss.

He took command. "Run and tell the neighbors, quick!" he ordered Etheridge. "Ask someone to ride fast to Oil City and to Titusville to tell the police about this."

He leveled a stern look at Geiger. "Henry, you didn't know these men? You didn't tell them where was the safe?" he asked. Geiger fingered his neck, profanely denied these charges.

The robbers escaped cleanly. A few miles from the farm they had smashed the sleigh, turned the family driving horse loose. There was no trace of them or the booty. Benninghoff announced that he would pay a reward of \$25,000 for the arrest of the robbers and the return of the \$260,000 they had stolen. He hired detectives and several arrests were made. Every man so detained was able to produce an alibi. They all filed suits against Benninghoff for civil damages—and collected. Henry Geiger was discharged and left without complaint, a smug little smile on his thick lips.

A Titusville newspaper printed an account of the robbery and stated that the other safe had contained fully as much in cash as the one which had been rifled. Joseph Benninghoff, the son, wrote a blistering letter to the editor:

Pioneer, Jan. 21, 1868

Mr. Editor—Sir: I see a note in your paper this morning in which you allude to a gentleman coming from Tidioute to

ROBBERY ON A HIGH SCALE

inform us of an anticipated robbery, for which we paid the bearer of said information \$5.00. I say it is damdably false, this gentleman came in the evening and not at night, as stated in your paper, the gentleman stayed all night, in the morning I asked him what it cost him to come down. He told me the hire of the horse was five dollars, which I paid, then not knowing he was a police. I didn't wish to pay him more until I was satisfied that he was not an imposter or cutthroat and had taken that plan to get some money; but, however, in a few days I sent him five dollars more. I also see a note in your paper the other day stating that the other safe in our house contained a larger amount than that taken, which is also not correct, and hereafter you will do me a favor not to advertise for robbers until I tell you to do so.

Yours, etc.,

JOSEPH BENNINGHOFF

The next day, the Editor of the *Herald* replied as follows:

We cheerfully published the foregoing letter by way of correcting the misstatement referred to. Mr. Joseph Benninghoff was at a prayer meeting when his father was robbed, laying up his treasures in Heaven—where thieves do not break through, nor steal. But Joseph, being a son of the old man, appears to take the misfortune to heart as seriously as though the “spondulicks” had been his own—and why should he spell “damnable” with two “d’s” when he says one of our statements is “damnable” false? We have never had any intention of “advertising for robbers” and are glad to learn there is less money in Mr. Benninghoff’s other safe. We would advise him to throw away his safes altogether, and cord up his greenbacks in the vaults

THE VALLEY OF OIL

of the Second National Bank. There is where we keep our heavy surplus and we have never lost \$210,000 since we opened a bank account.

Time passed, but evidence against the culprits accumulated. At last arrests were made. The leader, alone, escaped. He was, beyond doubt, James Saeger, of Saegertown, a village about twenty miles from the site of the robbery.

Lewis Weldy, one of the accused, suddenly had become affluent. He had never been an industrious soul; indeed, he had never been known to do an honest day's work in his unsavory life. Reports had come in that he had moved to Akron, Ohio, where he had invested \$30,000 cash in a brewery, thus fulfilling a lifelong ambition to be in a position where he could drink all of the beer he wanted. Arrested, he confessed to his share in the robbery and incriminated several others, including Henry Geiger. Most of the participants were arrested and promptly convicted of the robbery.

Benninghoff prosecuted mercilessly. In civil court he was given legal ownership of the Akron brewery. All of his life he had been an ardent dry. The brewery, strangely enough, was making money. Benninghoff wrestled with his conscience, sold the brewery, and managed to salvage something of the loss involved in the robbery. The oil fields chuckled hugely over Benninghoff's ownership of a brewery. No one, however, dared to twit the stern old German about it to his face.

For years all traces of James Saeger were lost. He had

ROBBERY ON A HIGH SCALE

escaped with \$200,000 of the lot. At long last, an oil man, wandering far from the land of derricks, saw Saeger in a Denver bar. He remembered the \$25,000 reward. Cautious inquiry developed that the reward still stood. He immediately wired his news to the Benninghoffs, at Petroleum Center.

Joseph Benninghoff, the chief of police of Titusville, and a deputy armed with a warrant for the arrest of James Saeger, arrived in Denver, hot on the scent, thirsting for an arrest.

What happened in Denver is still a matter in dispute. The parties involved never talked. Joseph Benninghoff disliked and distrusted newspapers and reporters. The two peace officers were sworn to eternal silence.

One popular story is that Saeger had become a rich and successful cattleman. That part of the story has never been disputed. As commonly told in the oil fields, about one hundred of the cowboys employed by Saeger surrounded the three men from the oil fields and told them they would never live to take Saeger out of the city. They carried pistols and were an ugly crowd, extremely loyal to their boss.

Another story has it that Joe Benninghoff talked privately to Saeger and received from him \$50,000 of the stolen money in return for a written promise of future immunity.

All that is definitely known is that Saeger was never prosecuted. It is reported that he died full of honor, a prosperous old man and a pillar of the church..

The Man Who Had the Cure

*T*he oil industry almost died in its infancy.

The oil producers glumly admitted that they knew the nature of the complaint, but the cure escaped them. After Pithole, very few flowing oil wells were drilled. That meant that the oil had to be pumped to the surface. There was to be no more "flush" oil production until newer fields were opened. Unless these pumping wells produced normally over a long period, oil producers would go broke.

These producing wells might start off with a very profitable initial production of crude oil. Then, week by week, the gauge in the derrick tank would tell a pitiful story of decreased production. Eventually, the production would shrink to a mere drizzle.

THE MAN WHO HAD THE CURE

Remedies of various types were tried. Men realized that the trouble was largely due to a clogging of the pores of the oil-bearing sands, choking off the natural flow of oil into the drilled hole. The industry was desperate and resorted to some desperate remedies. They tried strange and fearful combinations of acids, some of which proved to be momentary cures. Even a few years ago there were still very old men in the Pennsylvania oil fields who could boast of deep, ugly scars on their hands and arms caused by the injudicious use of these acids.

As oil wells grew older, their productiveness dwindled. It was a situation that was almost tragic in its incidence. Oil men no longer sang as they worked. There was no music in the bars. Men came in at the end of the day, bitterly discussed their troubles, gulped their drinks without pleasure. Banks called oil loans. Even oil producers known to be honest and intelligent encountered a soggy reluctance when they approached banks for loans to finance new ventures.

The oil producers did not know it, but their basic problem had been solved by a patient French chemist and by a cannon ball exploding in a millrace during the Civil War. Deliverance was at hand; yet, when it did come, they felt that they were the victims of an unjust circumstance.

Colonel E. A. L. Roberts was a tall, spare man, with an erect military carriage and penetrating eyes. When

THE VALLEY OF OIL

he first arrived in Titusville, he was unknown. In less than a year he was to become one of the most powerful men in the industry.

Likewise, he was destined to enjoy the unique distinction of being the most thoroughly hated man in oil-dom. He was to become a storm center of over 2,000 individual court cases. He was to die with a reputation of having never lost a single court case.

He was to be the savior of the oil industry.

Captain Mills of Titusville was not in good humor when he first met Colonel Roberts. Mills was a small peppery man with a permanent limp caused by a Confederate bullet; the cold weather aggravated the old wound and caused him constant pain. In January of 1865 he was almost a poor man, in spite of the fact that he had once owned valuable oil property. There were bills to be paid. He did not have the money to meet these obligations; the thought sickened him and further soured a disposition that had never been noted as being sunny. His once famous "Ladies' Well" had been a prized piece of property, but its daily production had diminished to near the vanishing point.

He puffed moodily on his pipe in his small office, located in the garden at the rear of his large home. He had just refilled the small stove with wood and returned to his ledgers, the books that persistently told an uncheerful story of his economic circumstance. A knock sounded on the door. As a rule people knocked on that door with a certain degree of timidity. Even members

THE MAN WHO HAD THE CURE

of the Mills family approached the office with trepidation. This knock, however, had nothing of timidity about it. It was a sharp, imperative knock.

Captain Mills stumped to the door, swung it open and said very crossly, "Well, what do you want?" to the man standing there.

The visitor was lean, tanned, quietly dressed, a man whose sharp eyes bored into him. The stranger smiled briefly. His teeth were white through his heavy, neatly trimmed brown beard.

"My name is Colonel E. A. L. Roberts," he replied in a strong, vigorous voice. "What I can do for you, depends entirely on you, sir! I may be able to do you a great and lasting favor."

Somewhat abashed, Mills gruffly invited Roberts to enter. Perhaps it was the man's quiet assurance, his direct way of looking at him—possibly it was because years of military experience had taught Captain Mills the inevitable necessity of obeying and respecting anyone who was his superior in rank. But this visitor instantly commanded respect.

Roberts removed his heavy topcoat and his hat, stripped off his gloves and flexed his long fingers before the glowing stove. Mills pushed forward a chair, and for a few minutes the men swapped military talk and experience.

Then Captain Mills limped over to a corner closet, brought out a bottle of Allegheny rye, ceremoniously poured two glasses of it.

THE VALLEY OF OIL

Roberts, well grounded in strategy, decided that this was the time for a direct, frontal attack.

"At Fredericksburg, back in 1862, I saw a shell explode in a millrace," he started out. "It gave me an idea. In November of last year I was granted a patent based on that experience, a patent, sir, that I believe will prove invaluable to the oil industry."

He reached in a pocket, brought forth a copy of the patent, spread it on his knees. "Briefly, sir, the idea is this: 'a process of increasing the productiveness of oil wells by causing an explosion . . . at or near the oil-bearing point in connection with superincumbent fluid-packing.'"

Captain Mills swallowed the last few drops of his liquor, relighted his pipe and puffed furiously. "Colonel Roberts, don't you know we have tried setting off explosives in our wells and it didn't do a damned bit of good?" he rasped.

Roberts nodded and smiled. "Yes, so I understand. However, I have never heard of anyone doing it with superincumbent fluid-packing. Am I right?"

"What in the devil is superincumbent packing?" Mills asked, cautiously.

"Water! That's all!" Roberts explained. "Trouble with using an explosive in a drilled hole is that you people have simply put gunpowder down the hole and exploded it. What happened? Nothing! The drilled hole acted like a gun barrel and the entire force of the explosion went up the hole instead of staying down

THE MAN WHO HAD THE CURE

there and doing some real good. With the use of super-incumbent fluid-packing, the initial force of the explosion is directed sideward and downward before it is forced up the drilled hole. While I will start off using gunpower, I will eventually use the most powerful explosive the world has ever known: nitroglycerine, something that has been discovered by a French scientist."

Mills became definitely interested. Roberts told him very frankly that while his financial resources were limited, he would agree to make an initial experiment on the "Ladies' Well" without cost to Mills. He told Mills about nitroglycerine—made from nitric and sulphuric acids and glycerine—powerful and extremely sensitive. He had the formula. As he talked Mills's eyes switched to the ledgers and he was reminded of his financial situation. If this man could even partially revive the "Ladies' Well," he could pull out, meet all of his obligations.

"You can test your theory on the 'Ladies' Well' when it meets with your convenience," he agreed.

It was bitterly cold on January 21, 1865. Only a few oil men gathered as spectators. The wind whistled down the valley and the air was filled with fine, biting spits of hard snow. Roberts appeared in a hired carriage. On the side of the carriage were strapped two lengths of iron tubing. On the seat beside him was a box of gunpowder.

Someone held the horse and he climbed out stiffly. "You have a hellish climate here, gentlemen!" he said

THE VALLEY OF OIL

with a grin as he shook hands with Captain Mills and the spectators. He unstrapped the iron tubes, carried them to the floor of the derrick, his boots crunching crisply in the snow. He made another trip and returned with the box of gunpowder and some other equipment.

Immediately he set to work. He attached the first tube to the sandline, filled it with a stream of black gunpowder, and then sealed the tube and lowered it gently to the bottom of the drilled hole where the hook disengaged and was retrieved. The second tube followed. He calmly carried the balance of the powder, with the exception of a pound of it, back to the carriage.

Back at the derrick, he poured several barrels of water down the casing; this would be the superincumbent fluid-packing, Captain Mills explained to the shivering group of oil men.

Roberts produced a small iron tube, a miniature of the larger ones now reposing at the bottom of the hole. He filled it with powder and inserted a long fuse. He reached for a match. Before lighting it, he said: "You'd better get back about a hundred yards from the well. Now!"

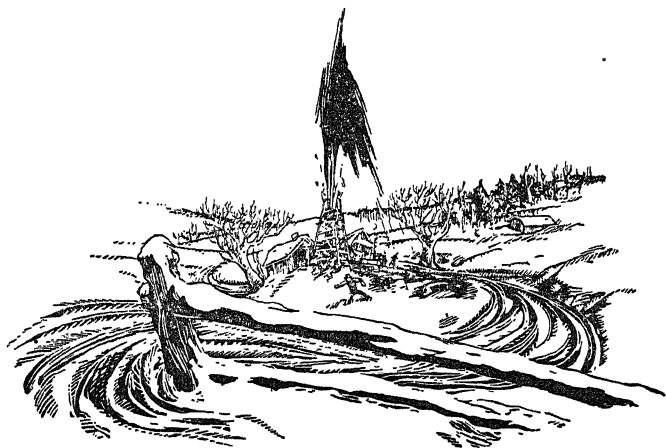
As they scurried away, they saw him light the fuse and drop what he called the "go-devil" down the hole. He hurried after them; yet, even in his haste, there was dignity.

They waited what seemed an interminable time. Then there came a tiny, modest explosion, no louder

THE MAN WHO HAD THE CURE

than a cap pistol. The ground, however, shook a little. One of the men swore in disgust: "Hell, that little explosion can't do any good!"

Almost before he ceased to talk, there came an earthy sigh from the casing head and from it emerged a blast of hot air, to be followed by a mounting column of oil, water, sand, pebbles. Majestically, and with a tremen-



dous, ear-splitting roar, the column mounted impressively until it reached high above the crownblock at the very top of the derrick. The noise was deafening. The wind caught the column at its apex, feathered it into a black cloud that colored the snow for a hundred yards. Slowly the column diminished and soon it merely bubbled above the casing head, but that column was now pure oil.

The "Ladies' Well" was rejuvenated, flowing again.

THE VALLEY OF OIL

Captain Mills forgot his ailing leg, capered like a child. He pumped the hand of Colonel Roberts and was almost incoherent in his gratitude. Roberts was the only calm man in the group. The men now looked upon him with renewed respect. Here was a man who had not been talking through his hat. He had a system that actually did something magical to old, worn-out oil wells. They pressed forward to shower him with congratulations, to thump him on the back.

He was an impatient man, even to his last days. He always disliked and distrusted familiarity. He shook them off. He climbed into his carriage and looked down on them. "Gentlemen," he said quietly, "what you have seen demonstrated today, can be multiplied thousands of times with almost any oil well that once was a profitable producer. I will shortly be in a position to extend such a service to you. May I remind you that my system is patented and that I will tolerate no abuses or infringements on my patent. Good day to you, gentlemen!"

That night the city of Titusville buzzed with the news; the telegraph carried the story to other oil field cities. Oil men discussed it in power houses, on derrick floors, in bars, offices, and on the street. It was amazingly fine news. It meant that the industry was saved, that the old wells would again become profitable producers under this treatment.

As to the patent, it wouldn't hold; that they were certain of. Why, Reed and others had patents on using ex-

THE MAN WHO HAD THE CURE

plosives, patents issued long before this man Roberts appeared.

"But," Captain Mills reminded some of his oil producer friends, "don't forget this fluid-tamping! That's the thing Reed and all of us overlooked. That's the point Roberts stressed when he talked to me. He has an air-tight patent. My 'Ladies' Well' is producing a hundred barrels of oil a day since he treated it. I like this man Roberts. I warn you solemnly, he's no man to trifle with; he's a military man, by God, so don't monkey with him!"

They grinned at the old man's enthusiasm.

It wasn't long before the energetic Colonel Roberts had an office in Titusville. The Roberts Torpedo Company had also built a small plant outside of Titusville where nitroglycerine was being made.

This nitro, the oil industry discovered, was a giant beside gunpowder. It was a liquid and its destructive power was almost unbelievable. It had to be handled with extreme care and constant caution lest it explode. In oil wells it worked a greater magic than gunpowder had been able to produce—and only a little of it was required.

Captain Mills was right in his estimate of Colonel Roberts. He was not a man to trifle with—and it wasn't long before that fact became common knowledge in the oil fields. When the oil industry found that his schedule of rates for "shooting" an oil well, even with a medium "shot," was as much as \$200, they screamed

THE VALLEY OF OIL

in economic agony and took immediate steps to extinguish what they loudly and vehemently proclaimed to be a base monopoly.

A few oil producers had paid the standard rate. Each time, the "shooting" produced a glorious rejuvenation. The oil sands that had been clogged with paraffin again poured oil into the drilled hole. A few of the wells so treated produced more oil than ever before. The heat from the explosion of nitro was so terrific that it instantly melted the clogging agencies. The force of the explosion shattered the oil sands far beyond the area of the drilled hole, caused crevices through which the oil could seep and flow—and greatly enlarged the area into which the oil could flow, creating a "pocket" for the storage of oil before it was pumped to the surface.

Yet, in spite of the manifest virtues of the Roberts' system, the oil industry felt that the rates were extortionate, unfair. Reed and others who had unsuccessfully attempted to use explosives for the same result, started court action. Roberts immediately countered and was able to defend his patents. He won every court case solely on the very sound ground of the super-incumbent fluid-packing clause in his patent.

Then, defeated from this standpoint, the indignant oil industry encouraged the "moonlighters," a rugged group of men who mixed nitroglycerine in wooden tubs at night, in some remote and isolated clearing. It could be done. Roberts knew that. He also knew that a perfect nitro had to be washed continuously while it was being

THE MAN WHO HAD THE CURE

mixed. Otherwise, the explosive became so unstable that it might explode at any instant. It is still one of the most unpredictable of all explosives. These, however, were things that the "moonlighters" did not know.

They discovered the instability of nitro the hard way. When they made the discovery, it was too late for them to profit by it. They would be literally blown into nothingness.

The "moonlighters" would agree to "shoot" a well at a price that was about one-half of that charged by the Roberts' "monopoly." They would wait for a moonlight night to start operations; from this they received their name. On a moonlight night these daring and misguided souls would hastily mix up a batch of nitro, pour it into jugs. Then, with jugs slung from straps across their shoulders, they would cautiously plod over hills and mountains, over rough roads and devious paths to the well that was to be illicitly "shot." Often, they never reached this destination. A stumble, a fall, a careless swing of the body that would bring the jug in contact with a tree trunk—that was all that was needed. The countryside would be lighted by a sky-reaching sheet of flame and the earth would be shaken by a savage explosion. Another "moonlighter" would be gone. Yet, there was always another man ready and waiting for the chance involved—and the monetary reward incident to survival.

The swarm of "moonlighters" greatly annoyed Colonel Roberts. They were cutting deeply into his

THE VALLEY OF OIL

profits. He called in a legion of private detectives and spies. Evidence piled up against the oil producers who used the services of the "moonlighters"—and it was evidence that would stand up in court. A few of the detectives vanished; many claimed that they were murdered and buried by the "moonlighters," but there is no evidence to support this specious but very natural theory.

Once the evidence was complete, Colonel Roberts would grimly hand it to his attorneys. "Sue!" he would command sharply. "These men have been cheating! They are stealing when they infringe on my patent. I want them punished. My business must be protected. My customers must be protected, too."

Pennsylvania courts were crowded with actions instigated by the Roberts Torpedo Company. It has been said that no other litigation in the history of the Commonwealth has ever equalled it in magnitude. All told, over 2,000 separate actions were involved. Roberts never lost a single one of them.

The industry was infuriated. In some instances men worked for years accumulating evidence to prove that Roberts had no valid right to his patent. Hundreds of thousands of dollars were expended by oil men, driven by hate. Their evidence was, time and time again, presented to judges and juries, there were headlines in the oil field press, impassioned oratory, and many indignation meetings. Yet decisions followed a common pattern; always the verdict was for Roberts.

THE MAN WHO HAD THE CURE

Eventually, after the patent was reissued in 1873, the oil industry had to admit that Colonel Roberts had licked it. It was a bitter, unpalatable pill to take. Meantime, the Roberts Torpedo Company branched out and flourished. They gave the oil industry an honest, worthwhile service in the scientific application of a system that literally saved a sick and sad industry.

Transporting nitro from its hillside magazines to the oil wells, handling it, day-after-day, the industry came to recognize as a hazardous business. Hundreds of men died in blasts of undiscovered origin. Even today, with smooth highways, with specially built trucks, containing thick felt cells in which the cans of nitro are carried, the explosive is still unpredictable, may explode at any time. Being an oil well "shooter" remains one of the most dangerous of all industrial jobs. The risks involved then, as now, were considerable. They justify the charges asked by the Roberts Torpedo Company.

Roberts was a sardonic individual. Before his death, he had accumulated large scrapbooks of clippings, most of which said very unkind things about him, items that pictured him as greedy, unkind, grasping. He would regard these books grimly and then smile a little as he proudly showed them to his friends.

He was, essentially, a fine and decent citizen. In the light of later events, there seems to be no doubt as to the legality of his patent. Certainly, no one ever disputed its utility. Nor did anyone ever deny that Roberts saved the oil industry from death.

THE VALLEY OF OIL

Roberts fought with honest, above-board weapons. He never resorted to violence or verbal abuse, to the calling of names. He did what thousands of men have done before and since: protected something that was his. Even the few bitter people who still remember the days and nights of the "moonlighters" have mellowed and today admit that the prices he charged were not unreasonable.

Today workers in every oil field in the world use the identical system originated by Colonel Roberts when they "shoot" an oil well. Superincumbent fluid-packing still plays a major role in the process. Oildom couldn't exist without the system that the fighting Colonel started and pushed so vigorously.

Roberts never pressed a creditor. He was generous and charitable; but he was, to the end, stern and unbending. To blame him is to be unfair; he was subjected to mass hate that was active, vitriolic, savage. He was slandered in the newspapers; he knew what it was to have his life threatened, what it was to live in daily danger. These are things that serve to embitter any man. That he was able to survive, that he still had generous impulses, speaks well for the man's basic stability of character.

Sometime, when the scars no longer show, perhaps the oil industry will discharge an overdue debt by erecting a simple monument to the memory of the man who rescued it at a time when there seemed to be no hope.

Lalah, the Spirit Guide

A fine figure of a man, was Abram James. He wasn't tall but inclined to be stout. His round face was graced with a luxuriant brown beard, giving him the appearance of one of the minor prophets. His eyes were a piercing black and his voice was subdued, a rolling thunder of impressiveness. He wore thick glasses and had a nervous and distracting habit of talking to himself even when in the presence of others. Also, he was powerfully persuasive and downright pious.

On an October day in 1867, Abram James and three friends were driving from Pithole City to Titusville. It was a gracious day, with the warm sun beating down, the hills veiled in a pale blue mist. The heavy woods flanking the roads, were vivid with deep scarlets, contrasting sharply with the sober brown of oak leaves and

THE VALLEY OF OIL

the deep color of the evergreens. The air was crisp, invigorating.

Three of the men were talking business, oil business of course. Abram James, huddled deep in his greatcoat, was aloof, remote, staring blindly ahead. Occasionally he muttered throatily to himself, a habit known to his companions.

A mile south of Pleasantville, James reached a gloved hand for the reins, sharply stopped the horses. He leaped from the carriage and his companions heard him say, "Yes, Lalah, I am coming!"

He leaped, with surprising agility for one of his weight, the rail fence surrounding the fields of the William Porter farm and galloped swiftly toward the north end of the field, pursued by his puzzled companions. In a corner of the field he stopped, reached down and plunged a finger into the soft soil up to the second joint. Then he folded up, fell flat on his face, rigid, pale as death. One of the men ran back to the carriage for a flask of brandy, sovereign oil field remedy for every illness. Before he could return, James regained consciousness, removed his finger from the soil. Without saying a word, he removed a penny from his pocket, placed it in the hole and carefully covered it.

A volley of questions from his friends went unheeded. For a time Abram James sat on the warm soil and literally beamed. He was a happy man. His friends feared for his sanity.

"Gentlemen," he said impressively, "I have great

LALAH, THE SPIRIT GUIDE

news I want to share with you. As you know, I am a believer in spiritualism. At times I receive sound and valuable business advice from the other world. It has guided me, given me some small measure of success. Just now, as we approached this place, I strongly felt the influence of Lalah, my spirit guide, an Indian maid who died three hundred years ago. She actually picked me up and hustled me across this field to this spot, telling me that beneath the surface I would find rich stores of petroleum if I would drill for them."

The friends didn't think much of the idea. Indeed, they scoffed at it. As they drove into Titusville they were convinced that their genial companion was par-



THE VALLEY OF OIL

tially insane. On his part, he believed them to be stubborn, unreasonable men. His sincerity, according to unimpeachable testimony, was never seriously questioned. He invited his companions to join him in a mutual investment, drilling a well at the spot where he had buried the penny. They resolutely refused. Only a few small wells had ever been drilled in the vicinity of Pleasantville; there were no surface indications of the presence of oil in these parts.

Above all, they were more than slightly cynical about Lalah, the spirit guide.

James refused to discard the thought that a fortune awaited him if he could only raise the money to drill one well. He was, as stated, a persuasive individual. His record was clean, his morals unquestioned. From a trusting banker he at last managed to borrow enough money to drill his first well. He leased the Porter farm and the derrick was erected at the precise spot where the penny had been buried. James recovered the penny, carefully placed it in his wallet and for years he preserved it as a luck piece. As the drilling progressed, Abram James radiated confidence.

"Lalah has again been in touch with me," he told Jehu Wickersham, the driller. "She says you will strike the sand at about 850 feet."

Jehu Wickersham was a cynic. But this man was his employer, therefore he concealed his skepticism. "Ought to hit the sand 'bout noon Thursday," he opined. "Will you be here, Mr. James?"

LALAH, THE SPIRIT GUIDE

James nodded. For a long time he stood watching the endless play of the walking beam. He was muttering to himself softly. His manner was animated and cheerful as he walked from the derrick. Jehu casually spun the feed on the temperscrew, squirted a derisive jet of tobacco juice on the floor. "The man is dead cracked," he said to his tool-dresser, who grinned in complete agreement.

At three in the afternoon of February 12, 1868, the driller reached the sand. According to measurements, the depth was just 850 feet. The bailer was run, the sandpumpings washed in a keg and there was an inch of oil on top of the water. Abram James smiled quietly and triumphantly. The next two screws showed that a rich vein of oil had been tapped.

Harmonial Well No. 1, as James called it, was a profitable well, producing about 135 barrels of oil a day. With a daily income of nearly \$900 a day, Lalah, the spirit guide, and Abram James were no longer the butt of oil field jokes. During the spring of 1868, the stock of Abram James rose. He drilled at least a dozen more wells on the Porter Farm. All were successful; none of them, however, approached the production of the Harmonial Well No. 1. Toasts were drunk to Lalah in the bars of Pithole, Pleasantville, and Titusville.

Oil producers, appraised by scouts of the success of the initial well, rushed in and leased the Beebe, Brown, Terrill, and Dunham farms. Each farm proved to be good oil property, nothing sensational but better than

THE VALLEY OF OIL

normal wells being drilled. Bean Farm, located at the junction of two dirt roads, became a small, but bustling town. Albert Tyrrel, later a pillar of the church, opened a store and a bar, prospered mightily for several years.

What became of Abram James, no one knows. When last heard of, his faith in the wisdom of Lalah, the spirit guide, was more than a trifle shaken. Lalah, it appears, had whispered in his ear that if he would drill a well near Clarion, Pa., he would tap another rich oil field. The well was sunk; it cost James over \$10,000. It was a duster—dry as a bone. James could not understand it. He assumed, he explained to his friends, that beyond doubt Lalah had fallen under the influence of some malicious spirit and was forced to give him bad advice.

"I'm afraid I can never trust Lalah again," he mournfully admitted to close friends.

Pleasantville became a modest edition of Pithole. The little village grew in population. It built brick buildings that are standing today. For years one of the buildings was the Eagle Hotel, famed throughout the Pennsylvania oil fields as a thoroughly satisfactory place to eat and stay and as a place for catch-as-catch-can drinking.

There was a time when Barnum's Circus paid \$500 for the privilege of showing one day in the little town—which gives a fair idea of its growth and its substance. Located on the highest ground in Venango County, Pleasantville is today one of the few small oil towns that have not gone to seed. It had retained much of its substance; it is a town of wide streets, comfortable houses.

LALAH, THE SPIRIT GUIDE

It now has one bank—it once had three—a prosperous institution. It is almost wholly an oil town, surrounded by oil property. In this little town today are men who have helped to make Pennsylvania oil fields the laboratory of the entire oil industry, and who are still experimenting and pioneering. They are largely second and third generation oil men.

It is a far cry from these modern pioneers, who have planned and applied scientific methods to the secondary recovery of oil from fields that had the appearance a few decades ago of being depleted, to the days of Abram James. Lalah, the spirit guide, has been replaced, as has the old rule-of-thumb, by engineering, hydraulics, and the slide rule. Today's oil men prefer to deal with tangibles. If another Abram James should appear on the scene, even if the spirit guide were to be streamlined and jet-propelled, it is most unlikely that the oil industry would accept the proffered guidance.

Today's oil men are practical folk; if they have anything to do with spirits they want them straight from the bottle.

In the Pleasantville area are located many of the oldest producing oil wells in the world. Several years ago, a few miles from the site of the Harmonial Well No. 1, there were wells known to have been drilled fully sixty years ago. One such well was located on the O. S. Benedict farm at Skunk Hollow, about a mile from Pleasantville.

CHAPTER XXV

Oh Pioneers!

The men who played major and minor roles in the first ten years of the new industry came from every walk of life, from all of the professions. It was seldom that one man had anything in common with his confrères. A Pennsylvania sawmill operator, a maker of dental equipment, a New England lawyer, an ex-railroad conductor, a pair of New York lawyers, whose scruples might not bear close scrutiny, an ex-prize-fighter who acted as a spy for both sides at once in the Civil War, a druggist, a member of the faculty of Yale College, another educator from Dartmouth, an actor—these are but a few of the major characters.

There were thousands of minor roles played by men and women whose deeds are obscure but who are important to the composite picture. Who were the valiant

OH PIONEERS!

souls who first compounded nitroglycerine? Who was it who invented the engine telegraph which enabled the driller to control the engine speed from his perch close to the headache post? Who invented fishing tools?

Who invented the names of oil drilling and pumping equipment that are today commonplace nomenclature in the oil fields of the world? Who first named sucker rods, forgie jacks, jars, seed-bags, elevators, crown-blocks, drive pipe, sand pumpings, rope spears, packers, bull wheels, sand lines, walking beams, bull rope, temper-screws, lead lines, and all of the other strange and curious items and terms known wherever oil is produced?

The business of producing oil calls for brains, ingenuity, perseverance, high courage and daring. The pioneers, as a rule, possessed these qualities abundantly. Those who survived and enjoyed the fruits of their labors were honest and intelligent. But not all of the honest oil men became rich and not all of the intelligent men were honest.

The formative days called for straight thinking. From the first, oil men were called upon to perform mechanical miracles. Some of their improvisations have survived in principle for eight decades. Young ambitious engineers view some of these mechanical monstrosities with wide-eyed incredulity. They set to work to improve them, to refine them; or, if they are especially ambitious, they set about inventing a brand new way of doing things. As they sweat and toil and experi-

THE VALLEY OF OIL

ment, the oldsters in the industry smile wisely. They know from experience that while their mechanics may be primitive, they have the advantage of being utilitarian. Time will pass and then, as the young engineers become older and wiser, they will frankly admit that the old method is one that cannot be improved upon. There's an adage in the oil fields to this day that the trained engineer isn't worth a two-penny damn until he has become a practical oil man. When that development has been accomplished, he is able to combine his engineering knowledge with his practical knowledge and thus becomes valuable to the industry.

The percussion method of drilling used in the wells at Pithole is still used with only minor variations. The method used by Colonel E. A. L. Roberts to "shoot" oil wells is virtually unchanged to this day.

The truth is, the pioneers often showed real judgment in reaching the solution of their problems, mechanical and otherwise.

Outstanding in the development of the oil industry in its first dramatic decade is the honor with which transactions were consummated. Deals involving hundreds of thousands of dollars were often settled without a single paper being signed. A meeting of minds, a hurried clasp of the hand—and the deal was concluded. Clerks, probably earning less than fifteen dollars a week, were often entrusted to negotiate the sale of oil to the value of thousands of dollars, to collect and deliver the cash. They had abundant opportunity to

cheat, did these unsung, obscure, whitecollar errand boys. Yet, there is no record that any of them ever tried to take advantage of the situation.

A man's promise was as good as his note. "If a man would break his word, his note of hand wasn't worth a Confederate bill," an oldster once told me.

Sudden wealth, quickly and easily acquired, ruined many of the pioneers. That is understandable. The same thing would happen today. Men and morals haven't changed much in eighty years.

When one considers the chaos, the startling expansion of the infant industry, the shifting values, the waves of almost incredible speculation that characterized the early years of the industry, it seems a miracle that it managed to survive, prosper and attain stability.

It was only because a high proportion of the early oil men had vision and courage that the industry didn't die miserably in swaddling clothes.

Curiously enough the credit for each solution of all the problems cannot be traced to any particular individual. Rather, what was accomplished was a composite effort, often brought about by men whose identity is today completely lost. The problems were frequent and always of a pressing nature. They could not be dismissed. They had to be faced frankly and honestly. It required rare ingenuity to solve any of them; often it needed joint effort, a united front. Especially was this most difficult when communication lines between the fast-growing industry were so tenuous.

THE VALLEY OF OIL

They worked hard—these pioneers—played hard, established their own codes of moral and business conduct. To this day the oil industry breeds a race of men apart, distinctive, individualistic, fiercely proud of their industry.

To give full credit to individual oil men who brought order out of chaos in the first decade of the development of the industry, is manifestly impossible. Each contributed something of importance. Placed together, their efforts helped to bring some measure of stability every time the industry faltered.

The names of many of the pioneers will live so long as the oil industry survives. Lost are the names and the deeds of the forgotten men, the drillers on the Holmden Well at Pithole, the oil scouts who waited through storm and extremes of temperature, watching the drilling of every remote "wildcat" well. Who it was who conceived and built the Plank Road from Pithole to Titusville, no one seems to know any more. I used to gather pieces of those planks for the range in my paternal grandmother's kitchen.

The little men, the teamsters, the tool dressers, the drillers, the rig builders, came from every walk of life. Some had been farmers, others were carpenters, blacksmiths, mechanics, store owners. Many were discharged soldiers of the Union Army, working out their own rehabilitation program. Some came from the cities. They engaged in a hard trade, a new one where they

OH PIONEERS!

had to make their own industrial rules. It was a world, so far as they were concerned, where they were paid top wages and expected to put into their work plenty of muscle and honest sweat. Many of these men emerged as oil producers, became prosperous, and boasted of the fact that they had earned their living and their place in the industry by the sweat of their brow.

The little men came, labored, loved, laughed, sinned, sorrowed and died obscurely. Without them the industry could not have progressed.

Casting back on the early history of the oil fields, one looks almost in vain for such things as grand larceny or murder. The boom oil towns were admittedly sinful and wicked. In the boom oil towns of Oklahoma and Texas a couple of decades ago the pattern hadn't changed much. There were red-light districts, gambling, speculation, brawling, cheating at Seminole, Bowlegs, Wink and other more modern boom oil towns.

Yet murder was a rare crime in the Pennsylvania oil fields.

Few of the early oil men ever earned a halo. Few of them deserved the gibbet.

They were a robust, forthright crowd. They were so busy making history that none of them ever stopped to write about it. Even the faded pages of daily newspapers published in boom towns that are today wilderness or merely a wide place in the road, treated what

THE VALLEY OF OIL

was being done, most casually. One can search in vain the musty files of the Pithole Daily Record, for a single spot of color, a touch of drama. Oil field journalism, as a rule, was not inspired.

The history these pioneers made is a clean page in the industrial development of this nation.

Some oil towns have lived; others died. Pithole City undoubtedly died of first degree burns. Like Babylon, little that is tangible remains. The old Methodist Church, once a familiar landmark, is no more. Someone stole the bell and the building was razed. Along a side hill is a series of dimples surrounded by melancholy grass and a few discouraged scrub oaks. These mark what was once the cellars of Main Street. The large one was the basement of the Opera House. Some old timers swear that Jenny Lind sang there; others dispute the statement with vigorous profanity.

Cash Up, Shamburg and Red Hot are mostly memories; Petroleum Center is still on the road maps—but the print is very small and inconspicuous.

Titusville, Oil City, and Franklin are busy, healthy cities. They are still oil towns, depending to a large extent on the business of the oil industry. In them are located several oil refineries, and many of their manufacturing plants cater to the oil industry.

Rouseville is a one-street village. A great oil refinery is located where Henry Rouse died so very gallantly.

Pleasantville remains strictly an oil-producing town. It is still a small town, but its homes are comfortable.

OH PIONEERS!

When the menfolk gather in the barbershop, or on the streets, the talk is still of oil.

In the area of the old oil towns new oil production techniques have been originated and tested. The old-time practical oil man is on his way out. Today, the engineer is in the saddle. He, too, is a practical man, but not always picturesque. But, he knows how to use a slide rule. He is the master of the dozen sciences required to raise the maximum of crude oil from oil fields once thought to be depleted. They produce oil today with algebra, hydraulics, and geology. These third generation Pennsylvania oil men have worked so intelligently that the area is regarded as the laboratory of the entire oil industry. Production methods used here are being applied to many semi-depleted oil fields in other states.

So long as oil is produced the men from these towns, men who have been raised in the traditions of the world's first oil field, will be leaders.

Appendix



Shifting Values

*W*hat is the value of a barrel of crude oil? Oil producers, speculators, brokers, refiners, and even the pipeline people all desperately sought the answer in the early days of the oil industry.

There were different and conflicting opinions. The true value of a barrel of crude oil seemed to depend on many factors. Transportation costs, refining costs, marketing costs, the inexorable laws governing supply and demand—these alone failed to govern the price of oil. Disturbing factors entered the picture, made it all the more confusing and distracted.

In the first decade about 25,000,000 barrels of crude oil were produced from the Pennsylvania oil fields. The price, during this interval, ranged from a high of \$20 a barrel to a low of \$.10 a barrel. Never did a com-

THE VALLEY OF OIL

modity show wider and more unstable extremes of value.

With these prices shifting constantly, the oil producers suffered acutely. An oil well producing 100 barrels of oil a day could generate a gross income that might range from \$10 to \$2,000 a day. The oil producer could not accurately estimate his gross return. As a result, bankers looked upon oil loans with a skeptical eye, judging them to be purely speculative—which they were. Gamblers and men with a reserve of capital managed to get along. Or, men with great luck! Bankers, even in those days, wanted certainty when they parted with money. They insisted on it.

The difficulties attached to reaching a true value for a barrel of oil were manifold. Even the advent of the pipeline and the building of huge storage tanks at the pipeline terminals failed substantially to stop the price fluctuations. In some respects these conditions added fuel to the flames of inflation or deflation.

The procedure of putting a barrel of crude oil in a place where it could become a marketable unit was simple. Once the oil was in storage, the owner was given a storage certificate, indicating the extent of the oil he had stored. This certificate was transferable and it was a negotiable instrument, an ideal medium of exchange.

The oil producer might know how to produce oil, but he was a child when it came to selling oil at a profit. Before the advent of the pipeline, men on horse-

SHIFTING VALUES

back, with saddlebags filled with currency, would appear at oil properties and bargain for thousands of barrels of oil. Armed with advance information as to oil prices, some of these men made fortunes. The daily fluctuations ranged from 5 to 50 per cent. Sometimes the oil producer would be hard pressed for storage, consequently he would be forced to accept any reasonable cash offer for his oil.

Sometimes men would meet on some lonely road. They would rein up their horses and eye each other speculatively. One of them might speak: "I'm looking for oil. Got any?" The producer would reply with a statement as to the volume he had available. He would inquire as to the price, as to whether the potential buyer could quickly move the oil. Usually, a bargain was struck. A thick wad of bills would exchange ownership, the men would shake hands and continue on their respective ways. No papers were signed, no witnesses required; it was a simple business deal between gentlemen, accepted as an industry custom. Millions of dollars exchanged hands in this manner. It was a crude economy, gratefully accepted by the oil producers, usually desperate to find any sort of a market.

It was an economy, however, where the oil producer was invariably done in the eye.

Millions of barrels of crude oil changed hands in a railroad car of the Farmers' Railway, running into Oil City from the surrounding oil fields. This was after the advent of the pipeline and when storage certificates

THE VALLEY OF OIL

were in circulation. The car was crowded on each trip; there were oil producers, brokers, agents for refiners and speculators. In the noisy, smoke-filled atmosphere, men bargained for the title to hundreds of thousands of barrels of oil daily. The air crackled with quotations on "spot," regular," and "future" purchases of crude oil. "Spot" sales, as the name indicates, were sales where the purchaser instantly paid cash and agreed to remove the oil from the premises of the seller at once. Such sales usually involved oil producers whose wells were not located on pipelines. "Regular" purchases involved oil that was to be paid for and removed from storage within ten days. "Future" sales covered a future purchase at a price agreed upon mutually by those involved in the transaction, at a specified date.

So important did the purchases become that there seemed to be a specific need for some authorized and centralized organization where oil could be bought and sold. In December of 1869 a permanent organization was effected and quarters were secured on Centre Street, at Oil City, Pennsylvania, for the first Oil Exchange. It had 400 qualified members, individuals authorized to buy and sell oil on the floor of the exchange.

The exchange became a focal point for all who were interested in the buying and selling of oil. The exchange was not, in any sense, a stabilizing influence. The members had no code of morals, no declaration of ethics to guide or curb them. The price of oil went up and

SHIFTING VALUES

down with extreme irregularity. The bulls and bears saw to that. Clearances averaged 12,500,000 barrels of oil a day, or rather on storage certificates of this value. Slightly over 4,000,000 barrels of crude oil were produced in the entire year of 1869—which gives a fair idea of how many times the storage certificates were manipulated in an average day. No wonder crude oil prices had artificial values!

Oil might be priced low in the morning. Before noon, the telegraph instrument in a speculator's office might start to click busily. It might prove to be a message from an oil scout that a gusher had been struck at Shamburg or Bradford and that a new oil field would be opened which would glut the market. Once the news was posted, passed from man to man, prices would fall off alarmingly. The bears would be elated, the bulls sad and mournful.

If the news got out that one of the big refining companies didn't have a barrel of oil in storage and that several of them were bidding high for thousands of barrels of oil, the market would reverse itself and the price of oil per barrel would zoom.

Oil City wasn't the only town to boast of an oil exchange. Yet, the Oil City exchange probably led all of the others in the volume of trading done. It was exceeded only by the New York and San Francisco stock exchanges in the dollar value of trading done. This business was in the upper brackets!

Busy and flourishing oil exchanges were located in

THE VALLEY OF OIL

Titusville, at Bradford, Parker, New York, Philadelphia, and Pittsburgh.

Fortunes were made and lost every day in the wild trading of oil certificates. Prices swept up and down, and the oil producer sweated and worried and swore.

The oil exchange idea proved to be a fallacy. It realized none of the ambitions of those who founded it, who sincerely hoped that it would stabilize the price of crude oil. It released a wave of speculation, an era of economic instability from which the oil industry had difficulty in recovering.

Yet, the industry did survive these fantastic price fluctuations. The oil producers had courage and determination—and luck did smile at them benevolently at times. Those who managed to survive, however, did bear some scars.

It was not until 1871 that oil prices became stabilized, thanks to the Standard Oil Company and its establishment of a daring, courageous, and far-seeing policy of purchasing crude oil at posted and fair prices. It was a practical policy, even though the oil industry did not at first accept it with open arms.

To Market, To Market!

*S*tatistics can be most confusing.

In 1860, the year after the first well was drilled, the total production of oil was 547,439 barrels. The following year it was nearly four times this volume. Obviously, the production of oil increased enormously in a single year. This increase was made possible by an amazing expansion in the area proven to be capable of producing crude oil.

The inquiring mind, however, wonders what became of all of this oil! Here was a natural raw mineral, unknown two years before, yet being produced at the rate of over 2,000,000 barrels a year. How and where was it processed? How and where was it sold? By what magic was America able to build and operate processing plants that would make the raw material into marketable products? How, in such a short time, could men be trained to operate the plants? How could a market be

THE VALLEY OF OIL

created to absorb this heavy output?

One of the answers is that when Drake drilled his first well, there were already in existence and operation about sixty oil refineries, scattered through eight states!

This, obviously, cries for an explanation. If the statement is true, then the oil industry enjoys the unusual distinction of being the only basic industry ever born with ample and efficient processing equipment ready and waiting for it. It must, in addition, have been the only brand new industry born with an eager and large demand for its products, already in being.

Behind the scenes, years before men thought of drilling for oil, were two men who deserve more than passing notice. One was Dr. Abraham Gesner. In 1846 Gesner, an able and painstaking chemist, proved that it was possible to make an illuminant from shale coal. His process was protected by an ironclad patent, and in 1854, the product was manufactured in quantity by the North American Gaslight Company, with offices in New York City and a thriving plant on Long Island.

The product was "kerosene oil." It was an excellent, but expensive illuminant. Hundreds of thousands of lamps were already in use in American homes. Mostly, the lamps had been made for the use of whale oil. "Kerosene," the brand name of the new illuminant, burned in them readily. The product found a ready market at \$2 a gallon and was sold through grocery stores.

TO MARKET, TO MARKET!

In New England, thousands of men and hundreds of ships were engaged in whaling, a most profitable industry and the veritable backbone of the New England maritime industry. The whalers heard of the new process for making an illuminating oil from cannel coal and enjoyed many a hearty laugh over the idea. The thought that any illuminant could ever compete with whale oil was ridiculous. Yet, as time passed, they discovered that kerosene was a strong competitor, one which was so much in demand that whale oil prices fell off alarmingly. The production of kerosene, it was evident, could be increased enormously, while the production of whale oil was falling off, due to a scarcity of whales. The New England whalers did not know it, but they were approaching the end of an era, the concluding chapters in the history of whaling, a traditional and native industry.

As the demand for kerosene increased, refineries were established in the coal fields. It was far cheaper, the refiners discovered, to ship the finished product to market than it was to ship the coal into the market area. As a result, nearly sixty such refineries were in active and profitable operation before 1859.

They were located as follows:

Maine	1	Refinery
Massachusetts . .	5	Refineries
New York	5	Refineries
Pennsylvania . . .	8	Refineries

THE VALLEY OF OIL

Ohio	25	Refineries
Kentucky	6	Refineries
Virginia	8	Refineries
Missouri	1	Refinery

Drake and the pioneer oil producers made possible millions of barrels of crude oil every year. The makers of kerosene recognized the fact that they could profitably use the new mineral in the making of an illuminant and thus shorten their processes. They converted to the use of crude oil rapidly and absorbed quantities of the new product. Much of their volume had been marketed by the Carbon Oil Company of 184 Water Street, New York City. The product made from petroleum, it was discovered, was a tremendous improvement over kerosene made from cannel coal. Further, it could be produced more cheaply. As a result, a cheaper, better illuminant was made available to the world and the market expanded as the demand steadily increased.

The Dark Age was over.

Luther Atwood, about whom little is known, was a resident of Waltham, Mass. Using cannel coal as a base, in 1852 he produced a lubricant known locally as "Coup Oil." It was a lubricant superior to whale oil, lard oil, tallow, or the vegetable oils then in use. Atwood, however, never patented his process, nor did he attempt any broad-gauge refining. "Coup Oil" had faded from the picture before 1859.

All refining processes were originally primitive in

TO MARKET, TO MARKET!

character. It was a simple process of distillation. The oil was placed in large iron pots or stills under which a fire was started. The product that ensued when the oil mixture boiled was piped through coils of pipe and cooled. The main residue the refiners were seeking was the basis for an illuminant. This base product was then purified by acids and by filtering through bone ash.

At first the refiners were at a loss to know what to do with the other residue. They faced a disposal problem of first magnitude. One residue was a fluid that had the appearance of slightly stained water. It was highly inflammable and explosive. They called it "benzine." It was an unwelcome byproduct. It was dangerous to handle, difficult to store. Some of the refiners dumped it in streams where it promptly killed all the fish. Some poured it in gullies. A few burned it in deep pits.

If the colorless, gassy-smelling liquid had any use, it was in the washing of greasy clothing. Overalls, thick with congealed grease, could be washed in the benzine and emerge with every spot of grease neatly removed.

One oil producer noted this and decided to make an experiment. He asked a Titusville refiner how much he would charge for a few barrels of benzine and the refiner was delighted to sell him as much as he wanted for ten cents a barrel. The man loaded his wagon with seven barrels of the fluid and drove to his oil wells. His wells were steadily dropping in production. This he knew to be due to the fact that the oil-bearing sands were clogged with paraffin, a condition that could only

THE VALLEY OF OIL

be cured by "shooting" the wells with a heavy charge of explosive, an expensive procedure. Into the tubing of one of the ailing wells, he funneled three barrels of the benzine. The next morning he started the engine and the walking beam began to churn the sucker-rods up and down. In to the derrick tank came a thick stream of oil. Patiently the producer watched the level of the oil in the tank rise far beyond normal production. When he measured the tank, he discovered that the production had substantially increased. The benzine had performed a minor miracle. It had, as he suspected it would, dissolved the clogging ingredients in the oil sands and rejuvenated the well, making it possible to produce nearly twice as much as it did when the well was originally drilled. He was elated. He realized that the benzine had also mixed with the oil, blended with it so perfectly that he had almost a complete recovery of what he had poured in the well. The goose that laid the golden eggs was a poor and indifferent producer of wealth when compared to what this man had discovered! It was possible for him to buy benzine at ten cents a barrel and then sell it, mixed with oil, to the company from which he had purchased it originally, for \$3.87 a barrel. And at the same time, the stuff increased the flow of oil from the well.

If the producer didn't dance with glee, it wasn't that he didn't have good reason to so express himself! Soon, however, he discovered that the dosage of benzine could not be too heavy, because it diluted the crude oil to

TO MARKET, TO MARKET!

the point where it lost its pristine color and specific gravity, thus making the scheme obvious and discoverable.

Nevertheless, oil producers bought thousands of barrels of benzine for ten cents a barrel, sold it back, after they had used it as a laxative in their wells, at the prevailing price of crude oil. They kept the secret well, did the oil producers. The refiners didn't hear about it for years and years.

It was not, however, until the invention and general use of the internal combustion engine, that a real and a profitable market for the fluid was found. It was then that benzine emerged into its real sphere of usefulness and became known as "gasoline."

It's hard to believe that it was once a troublesome by-product, not only without value but also extremely difficult to dispose of.

The other byproduct was a greasy residue. It, too, was difficult to sell. Some refiners conceived the idea of clarifying it, treating it with acid and filtering it. Later, others were to discover that if the greasy residue was subjected to intense cold under pressure, it would exude a fine quality of wax. The wax found a ready market; the residue lubricant was so excellent that in one form or another it was destined to put the finishing blows to the whaling industry, and it was of such a quality that it cut down friction losses in factories, mills, railroads, and shops.

The "Flats," a low, marshy area east of Titusville,

THE VALLEY OF OIL

was for many years the site of dozens of primitive refineries. Byproducts were dumped promiscuously into pits in this sector. As a result, a few feet below the surface of this entire area, there are strange deposits of semi-refined crude oil. Barrels of this product can be recovered by manual methods to this day. It has the appearance and the smell of crude oil. When a refinery chemist analyses this liquid, however, he discovers that it is so heavily impregnated with acids that it has no market value. It would probably be possible to remove thousands of barrels of this liquid from the Flats—but, until a market exists, it will remain in sub-surface storage.

The discovery of a better, cheaper lubricant came at a propitious time. American railroads were on the brink of a great expansion; the country was also close to a vast industrial expansion.

The advent of a new lubricant was hailed with great joy by all of the machinery manufacturers and engineers. The new lubricant was so good that it meant almost all existing machinery had to be redesigned and most of the engineering textbooks had to be revised. With the new lubricant, closer tolerances were possible between moving parts of machines and greater speeds of shafts were possible. New and improved designs resulted almost immediately.

What happened to the railroads is typical of the change that swept every industry where machinery was used. Railroad trains were pulled by locomotives, the

TO MARKET, TO MARKET!

boilers of which carried only sixty pounds of steam pressure. Speed was impossible. As it was, upkeep was in the higher brackets. Tallow or lard oil were favorite lubricants and these caused the destruction of steam chests and cylinders because of the fatty acids in them. Breakdowns of motive units were frequent on all of the railroads of the day; often hot-boxes on the axles of the cars would cause the wheels to lock, and this was responsible for many wrecks of both passenger and freight trains.

When the first refiners of lubricants approached the railroads in an effort to sell them a new and improved lubricant, they encountered a solid wall of opposition. It was only by guaranteeing to pay for any damage that might be caused by the use of their product, that the refiners were given an opportunity to prove the value of the new lubricant.

Contrasted with whale oil, tallow, lard oil, and vegetable oils, the petroleum lubricants were perfection itself. Quickly locomotive design was changed. Steam pressures of 180 pounds were possible. The speed of trains increased; locomotives were able to haul heavier trains and required less repairs and replacement of parts. The new lubricants were a revelation to the railroads. They kept fluid at 20-degrees below zero, thus keeping axles lubricated perfectly in cold weather. In the hottest weather, under all extremes of heat, the new oils and greases continued to function efficiently and were not readily dissipated.

THE VALLEY OF OIL

Railroads started to pay dividends. Locomotive equipment started on a long and interesting career of improvement. At no time has there had to be any delay in the mechanical perfection of locomotives because of a lack of an adequate lubricant to meet new conditions.

The rails were a godsend to the oil industry. At first only three railroads used their lubricants. Then, almost overnight, every railroad system came to the oil industry for lubricants.

In another way, the rails were of great value as customers. The hundreds of thousands of signal lights on railroad lines had been burning whale oil or kerosene made from cannel coal. Railroads were inclined to use as few signal lamps as possible. Their economy, however, was ill-advised, as the fewer the signal lights, the more accidents that could be expected. Some railroads partially solved the problem by operating only during daylight hours. The cheap, dependable illuminant made from petroleum, however, made it possible for every railroad to have all the signal lights needed to operate their systems safely. Almost immediately, the accident record started to diminish.

Thus it was that petroleum industry and its products brought forth a new concept in transportation. Our rails expanded from coast to coast, rendered an all-important service in the resulting industrial expansion that made this the greatest of all industrial nations.

For the first decade, the refiners concentrated on the

TO MARKET, TO MARKET!

making of illuminants and lubricants. Later they were to discover that petroleum possesses almost inexhaustible possibilities—that from it can be made thousands of products that make life easier, more comfortable, safer, and more healthy.

Even before the national demand could be met, foreign markets were clamoring for our new product, and a growing volume figured in our exports.

Aggressive, alert, progressive salesmanship on the part of the refiners introduced petroleum products into every part of the civilized world. There was oil for the millions of lamps of China, for example. One oil company gave away lamps in China, thus providing a means of using their product. It was a merchandising scheme that paid handsome dividends.

The textile mills of Britain, Germany, and France and the growing railroad systems of Europe paid high prices for our lubricants and profited handsomely because of the increased efficiency of their mechanical equipment and the greater productivity. The United States, as the home of petroleum products, gained in prestige. And the world gained in wealth and employment, in cheaper and better goods.

Even rural American homes were lighted with the new lamps burning an illuminant made from petroleum. The refiners set up a system of distribution that soon blanketed the entire nation and made it easy for the retailer and the consumer to buy illuminating oil and lubricants. They put tanks on wheels, wagons hauled

THE VALLEY OF OIL

by horses, that covered specified routes, replenishing supplies, offering petroleum products at a price the public could afford and one that made it possible for the retailer to make a profit.

With the advent of the motor car, the oil industry merely expanded and refined its distribution system, making it possible for the user to buy from some conveniently located filling station. In the process of doing this, about 400,000 retail outlets had come into existence at the outbreak of World War II.

What was accomplished in the processing and marketing of petroleum products during the first decade of the industry left an indelible mark on the history of the world. It is a strong, virile mark, a chevron of distinction and honor, earned by honesty, courage, daring, and pioneering that is unmatched in the history of any other industry.



UNIVERSAL
LIBRARY



130 228

UNIVERSAL
LIBRARY